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CENTRAL CAROLINA
TECHNICAL INSTITUTE

SANFORD, N. C.

1976

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CENTRAL CAROLINA TECHNICAL INSTITUTE

FOUNDED
1962
SANFORD, N.C.

GENERAL CATALOG

1975-76-77-78

C.C.T.I. is an Equal Opportunity Institution

1105 KELLY DRIVE, SANFORD, NORTH CAROLINA 27330
PHONE (919) 775-5401

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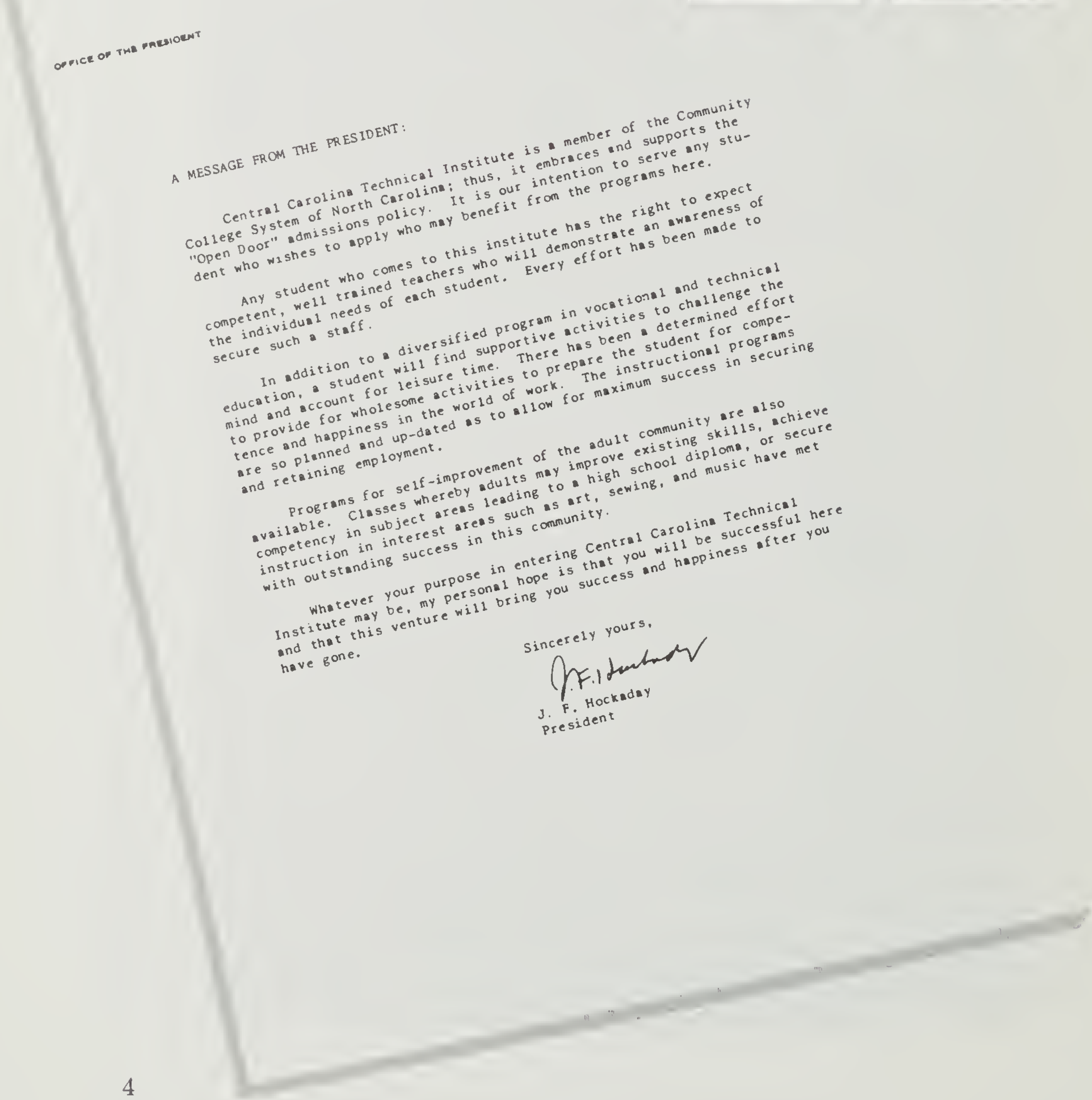

Central Carolina Technical Institute
DEPARTMENT OF COMMUNITY COLLEGES
KELLY DRIVE ROUTE 2, BOX 55
SANFORD, NORTH CAROLINA 27330

OFFICE OF THE PRESIDENT

A MESSAGE FROM THE PRESIDENT:

Central Carolina Technical Institute is a member of the Community College System of North Carolina; thus, it embraces and supports the "Open Door" admissions policy. It is our intention to serve any student who wishes to apply who may benefit from the programs here.

Any student who comes to this institute has the right to expect competent, well trained teachers who will demonstrate an awareness of the individual needs of each student. Every effort has been made to secure such a staff.

In addition to a diversified program in vocational and technical education, a student will find supportive activities to challenge the mind and account for leisure time. There has been a determined effort to provide for wholesome activities to prepare the student for competence and happiness in the world of work. The instructional programs are so planned and up-dated as to allow for maximum success in securing and retaining employment.

Programs for self-improvement of the adult community are also available. Classes whereby adults may improve existing skills, achieve competency in subject areas leading to a high school diploma, or secure instruction in interest areas such as art, sewing, and music have met with outstanding success in this community.

Whatever your purpose in entering Central Carolina Technical Institute may be, my personal hope is that you will be successful here and that this venture will bring you success and happiness after you have gone.

Sincerely yours,

J. F. Hockaday

J. F. Hockaday
President

SCHOOL CALENDAR 1975-1978

FALL QUARTER 1975-76

Faculty orientation	September 3,4, 1975
Orientation and registration	September 8,9, 1975
Classes begin	September 10, 1975
Last day to register or change courses	September 17, 1975
Mid-Term	October 17, 1975
Final examinations	November 21,24,25, 1975
Fall quarter ends	November 25, 1975

(Thanksgiving holidays occur between fall and winter quarters.)

WINTER QUARTER 1975-76

Registration	December 2, 1975
Classes begin	December 3, 1975
Last day to register or change courses	December 10, 1975
Christmas holidays begin at end of class	December 19, 1975
Classes resume after holidays at 8:00 a.m.	January 5, 1976
Mid-Term	January 23, 1976
Final examinations	February 27, March 1,2, 1976
Winter quarter ends	March 2, 1976

SPRING QUARTER 1975-76

Registration	March 8, 1976
Classes begin	March 9, 1976
Last day to register or change courses	March 16, 1976
Mid-Term	April 15, 1976
Easter holidays begin at end of classes	April 15, 1976
Classes resume at 8:00 a.m.	April 20, 1976
Final examinations	May 24, 25, 26, 1976
Spring quarter ends	May 26, 1976
Graduation	May 28, 1976

SCHOOL CALENDAR 1975-1978

This calendar is subject to change as a result of conditions beyond the control of CCTI.

SUMMER QUARTER 1976-77

Pre-registration	May 24, 25, 26, 1976
Registration	June 2, 1976
Classes begin	June 3, 1976
Last day to register or change courses	June 10, 1976
School closed week of	July 5-9, 1976
Classes resume at 8:00 A.M.	July 12, 1976
Mid-term	July 19, 1976
Final examinations	August 23, 24, 25, 1976
Summer quarter ends	August 25, 1976
Summer graduation	August 26, 1976

FALL QUARTER 1976-77

Pre-registration	August 23, 24, 25, 1976
Faculty orientation	September 1, 2, 1976
Orientation and registration	September 7, 8, 1976
Classes begin	September 9, 1976
Last day to register or change classes	September 16, 1976
Mid-term	October 15, 1976
Final examinations	November 22, 23, 24, 1976
Fall quarter ends	November 24, 1976

(Thanksgiving holidays occur between fall and winter quarters.)

WINTER QUARTER 1976-77

Pre-registration	November 22, 23, 24, 1976
Registration	November 30, 1976
Classes begin	December 2, 1976
Last day to register or change courses	December 9, 1976
Christmas holidays begin at end of class	December 17, 1976
Classes resume after holidays at 8:00 A.M.	January 3, 1977
Mid-term	January 24, 1977
Final examinations	February 28, March 1, 2, 1977
Winter quarter ends	March 2, 1977

SPRING QUARTER 1976-77

Pre-registration	February 28, March 1, 2, 1977
Registration	March 8, 1977
Classes begin	March 9, 1977
Last day to register or change courses	March 16, 1977
Easter holidays begin at end of classes	April 7, 1977
Classes resume at 8:00 A.M.	April 12, 1977
Mid-term	April 19, 1977
Final examinations	May 24, 25, 26, 1977
Spring quarter ends	May 26, 1977
Graduation	May 27, 1977

SUMMER QUARTER 1977-78

Pre-registration	May 24, 25, 26, 1977
Registration	June 3, 1977
Classes begin	June 6, 1977
Last day to register or change classes	June 13, 1977
School closed week of	July 4-8, 1977
Classes resume at 8:00 A.M.	July 11, 1977
Mid-term	July 20, 1977
Final examinations	August 24, 25, 26, 1977
Summer quarter ends	August 26, 1977
Summer graduation	August 27, 1977

FALL QUARTER 1977-78

Pre-registration	August 24, 25, 26, 1977
Faculty orientation	August 30, 31, 1977
Orientation and registration	September 6, 7, 1977
Classes begin	September 8, 1977

Last day to register or change classes	September 15, 1977
Mid-term	October 17, 1977
Final examinations	November 21, 22, 23, 1977
Fall quarter ends	November 23, 1977

(Thanksgiving holidays fall between fall and winter quarters.)

WINTER QUARTER 1977-78

Pre-registration	November 21, 22, 23, 1977
Registration	November 30, 1977
Classes begin	December 1, 1977
Last day to register or change courses	December 8, 1977
Christmas holidays begin at end of class	December 16, 1977
Classes resume after holidays at 8:00 A.M.	January 2, 1978
Mid-term	January 23, 1978
Final examinations	February 27, 28, March 1, 1978
Winter quarter ends	March 1, 1978

SPRING QUARTER 1977-78

Pre-registration	February 27, 28, March 1, 1978
Registration	March 3, 1978
Classes begin	March 6, 1978
Last day to register or change courses	March 13, 1978
Easter holidays begin at end of class	March 23, 1978
Classes resume at 8:00 A.M.	March 28, 1978
Mid-term	April 14, 1978
Final examinations	May 19, 22, 23, 1978
Spring quarter ends	May 23, 1978
Graduation	May 24, 1978

SUMMER QUARTER 1978-79

Pre-registration	May 19, 22, 23, 1978
Registration	June 7, 1978
Classes begin	June 8, 1978
Last day to register or change courses	June 15, 1978
School closed week of	July 3-7, 1978
Classes resume at 8:00 A.M.	July 10, 1978
Mid-term	July 24, 1978
Final examinations	August 28, 29, 30, 1978
Summer quarter ends	August 30, 1978
Summer graduation	August 31, 1978

Orientation and Registration Schedule For College Transfer and General Education

Fall Semester 1975

August 27, 1975	Registration & Orientation
August 28	Classes begin
September 5	Last day for late registration and last day to add a course

September 19	Last day for removing incomplete
September 26	Last day to drop course without grade
October 16	Recording of mid-term grades 12:00 noon
October 17	No classes scheduled
November 26	Thanksgiving Holidays begin 12:00 noon
December 1	Classes resume
December 11	Reading Day
December 12	Examinations begin

Spring Semester 1976

January 7, 1976	Registration
January 8	Classes begin
January 16	Last day for late registration and last day to add a course
February 4	Last day for removing incomplete
February 6	Last day to drop course without grade
February 27	Mid-term grades due—Start of Spring vacation 5:00 p.m.
March 8	Classes resume
April 19	Holiday
April 29	Reading Day
April 30	Examinations begin

All courses in College Transfer Program taught on campus at CCTI will be taught in the afternoon.

THE INSTITUTE

The Central Carolina Technical Institute is a tax supported, public non-profit school under the control of a local Board of Trustees. It was established under provisions of the General Statutes of North Carolina, Chapter 115-A, passed by the Legislature in 1963. It is supervised by the Department of Community Colleges, North Carolina State Board of Education. Members of the faculty are specially trained, qualified instructors with many years of experience in their chosen craft or profession. Each member of the administrative and teaching staff meets the standards of the Department of Community Colleges. Although established primarily for North Carolina residents, the Institute accepts students from other states.

The institution originated as Lee County Industrial Education Center and held its first classes on September 17, 1962. On October 2, 1965, the State Board of Education and the Advisory Budget Commission authorized elevation to technical institute status with authority to award Associate of Applied Science Degrees.

Approximately 99,000 square feet of classroom, shop, and laboratory space is located on a 32 acre site on Kelly Drive off Nash Street near U.S. Highway 421 (east), Sanford, North Carolina. Ample equipment, a large Learning Resource Center, and an efficient staff provide optimum training in a variety of adult programs in technical-vocational, general, and community service fields.

The Institute is open Monday through Thursday from 8:00 a.m. to 10:00 p.m. and Friday from 8:00 a.m. to 5:00 p.m., exclusive of holidays. Full-time administrative staffs are available at both the day and evening schools.

Classes are operated at the Institute and in outlying areas. In general, curriculum courses are held at the Institute proper; upgrading and general adult courses are held both at the Institute and at other locations.

ACCREDITATION

Central Carolina Technical Institute is accredited by the Southern Association of Colleges and Schools and by the North Carolina State Board of Education. The institution is a member of the American Association of Community and Junior Colleges. Its trustees are members of the Association of Community College Trustees. The Veterinary Medical Technology Curriculum is accredited by The American Veterinary Medical Association.

PURPOSE OF THE INSTITUTE

The purposes of Central Carolina Technical Institute are:

1. To prepare men and women to meet specific job requirements for initial employment and to provide vocational and technical education for employed men and women who wish to advance in their jobs.
2. To provide the education necessary to meet high school equivalency requirements for those who did not complete high school in the public school system.
3. To enable our citizens to acquire knowledge and skills which contribute to social, economic, and cultural growth.

STUDENT SERVICES

The purpose of the Student Services Office is to test, counsel, place, maintain records for, assist in housing, arrange loan funds, and assist the student in securing self-help and job placement. Hours of operation are Monday through Thursday, 8:00 a.m. to 10:00 p.m. and Friday, 8:00 a.m. to 5:00 p.m.

Counseling

Each student may use this service as desired. He may feel free to come to the Student Service Office at any time when a personal problem arises which may affect his educational progress. Students are encouraged to consult the Student Service Office on personal and academic matters. The staff will arrange conferences to discuss problems with the student in order to evaluate his case and provide the needed guidance.

Testing

Various tests are available as a tool for use in guidance and placement of students.

Placement

The Institute will assist students and alumni in securing employment. The objective of this service is to guide and assist students and graduates in obtaining the type of position for which they are best qualified.

Active contacts are maintained throughout North Carolina with business and industry available in the library. Group and individual job interviews will be arranged.

Student Center

The Student Center, adjoining the Administration Building provides a large area for students to relax while not attending class. Included in the Center is a food services area; a TV area; a student lounge; a recreational area; student government office and publications meeting room; and bookstore. Students are encouraged to use the Center as a place to meet, chat, eat, and relax. The Center is open from 7:30 a.m. until 9:00 p.m., Monday through Thursday, and from 7:30 a.m. until 5:00 p.m. on Friday.

A school bookstore is operated by the Institute as a service to students, faculty, and staff. Textbooks, school supplies and course-related materials, as well as other items of special interests, are offered for sale with profits being used for student government projects and services. The hours of operation are 8:00 a.m. until 5:00 p.m. Monday through Friday.

VISITORS

Visitors are always welcome at Central Carolina Technical Institute. The Student Services Office will provide guide service for groups or individuals. The institute is open from 8:00 a.m. until 10:00 p.m. Monday through Thursday and 8:00 a.m. until 5:00 p.m. Friday. Visitors are welcome during these hours. Questions about the Institute and its programs will be answered by personnel from the Student Services Office.

ADMISSION PROCEDURES

Applicants are encouraged to complete admission procedures as early as possible. Applications will be accepted from high school students during the senior year; adults may apply at any time preceding enrollment. Early application is important as enrollment in some classes may be limited. There is not an application fee.

Application packets may be obtained from the Student Services Office or from area high school guidance counselors.

To be admitted to a curriculum program at Central Carolina Technical Institute, applicants must have a high school diploma or the equivalent (GED).

Exceptions to this admissions policy will be determined after a conference between the applicant and Student Services personnel. All admission procedures should be completed at least 3 working days prior to actual enrollment of any applicant in a program.

To be admitted to a curriculum program, individuals must:

1. Complete and return the application form and the medical history report.
2. Submit a high school and/or college transcript or GED scores.
3. Have a pre-admissions counseling session with a counselor.
4. When notified of acceptance the person must submit a $15 deposit within 10 days to reserve a place in the curriculum.

ADMISSION PROCEDURES FOR INTERNATIONAL STUDENTS

To be admitted in a curriculum program at Central Carolina Technical Institute and receive a U.S. Department of Justice Certificate of Eligibility (I-20), International Students must be a high school graduate and follow the procedures listed below:

1. Complete and return the application form and have physician complete the back of the medical history report.
2. Have an official transcript forwarded from your high school and/or college.
3. Take the test of English as a foreign language (TOEFL) or the Scholastic Aptitude Test (SAT) and have scores sent to us.
4. Write a brief autobiography.
5. Since there are no institutional funds available, you should have on deposit in your account in the Business Office sufficient funds to cover tuition, books, fees and personal expenses for one academic year.

Special Student

A student may enroll for up to three courses as a special student without specifying an educational objective. To be admitted, the special student needs only to file an application and a medical history report. To continue beyond this point, the student must declare his educational objective and complete all of the admission procedures above.

EXPENSES

Business Office

Payments of fees, collection of parking fines, receipt of loans, and payment of refunds are major responsibilities of the business office. Students may avail themselves of these business services between 8:00 a.m. and 5:00 p.m. daily, Monday through Friday, excluding holidays. The Business Office is open during evening hours of registration.

Tuition

	In-State	Out-of-State
12 quarter hours or more (full time)	$33.00	$162.50
Part-time students per quarter hour	$ 2.75	$ 13.50

General college transfer-maximum per semester	$49.50	$243.75
General college per semester hour	$ 4.13	$ 20.25

RESIDENCE STATUS FOR TUITION PAYMENT

The tuition charge for persons who have been legal residents of North Carolina for at least 12 months is less than for non-residents. GS 116-143.1 of N.C. State Statutes covers the requirements for determining resident status for tuition purposes. A portion of GS 116-143.1 is quoted as follows:

> "To qualify as a resident for tuition purposes, a person must have established legal residence (domicile) in North Carolina and maintained that legal residence for at least 12 months immediately prior to his or her classification as a resident for tuition purposes. Every applicant for admission shall be required to make a statement as to his length of residence in the State.
>
> To be eligible for classification as a resident for tuition purposes, a person must establish that his or her presence in the State currently is, and during the requisite 12 month qualifying period was, for purposes of maintaining a bona fide domicile rather than of maintaining a mere temporary residence or abode incident to enrollment in an institution of higher education.
>
> An individual shall not be classified as a resident for tuition purposes --------until he or she has provided such evidence related to legal residence and its duration as may be required by officials of the institution-----."

Information relating to claimed North Carolina residence for tuition purposes will be required from all applicants claiming to be North Carolina residents and a determination will be made by the Dean of Administrative Services as to whether or not the applicant qualifies for in-state tuition rates. Should the ruling be contrary to the applicant's expectation, it may be appealed to the Residence Status Committee of the Institution. Should the Residence Status Committee's ruling be contrary to the applicant's expectation, it may be appealed to the State Residence Committee. In the event that an appeal is deemed necessary, full information on procedures will be provided by the Dean of Administrative Services.

The burden of establishing facts which justify classification of a student as a resident entitled to in-state tuition rates is on the applicant for such classification. Decisions by the Institution will be based on the requirements of the General Statutes of North Carolina, and regulations specified in "A Manual to Assist the Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes." Applicants with questions not covered by this section should contact the Dean of Administrative Services.

An information questionnaire will be supplied to each student upon acceptance. This questionnaire should be completed and returned to the Business Office along with the preregistration deposit by all persons who claim to be in-state residents for tuition purposes.

Advance Registration Deposit

An advance registration deposit of $15.00 is required of all incoming freshmen. This fee is not refundable unless the course fails to materialize. This advance payment will apply to the tuition charges due during the regular registration period.

Student Housing

The Institute does not operate dormitory facilities nor does it assume responsibility for housing and maintenance. Lists of available housing will be provided students on a non-discriminatory basis. Payment for such facilities is the direct responsibility of the student and must be made direct to the landlord. The Institute cannot accept responsibility for student conduct or activities off the school premises except when in connection with school sponsored and supervised activities.

The average rental rate per student for 1974-75 was $91.00 per month.

Activity Fee

A fee of $15 per year will be charged each regular curriculum student who will be enrolled in at least 12 credit hours. This fee is for student activities and includes the cost of an annual, the student newspaper, dances, social events, and other activities. Those students taking less than 12 credit hours will not be required to pay an activity fee but would be required to pay for an annual or other services included in the activity fee should they desire to participate.

For the purposes of calculating the activity fee, the school year begins with the fall quarter in September. The full fee of $15.00 for the year is due at registration. Those students who enroll the first time in the winter quarter will be required to pay a $10.00 activity fee and those enrolling for the first time in the spring quarter will be required to pay a $5.00 activity fee. No activity fee will be charged those enrolling the first time in the summer quarter. Those registering later than the fall quarter and paying a reduced activity fee will not receive an annual, but may purchase an annual if they desire. Should a student withdraw from school this fee is not refundable.

Student Insurance

Certain risks are inherent in any work involving regular contact with mechanical and electrical equipment. While stringent precautions will be taken to insure safety, it is felt to be in the best interest of all students to provide some measure of insurance protection.

A group policy providing insurance protection will be maintained in effect by the Institute and all students will be urged to subscribe to such coverage. The cost of accident insurance to the student will be $3.00 per year.

Textbooks

Students are required to purchase their textbooks. The Institute operates a bookstore from which books and other required materials and equipment may be purchased. The cost of these items varies with the program of instruction.

Special Apparel and Equipment

Students enrolled in certain programs (e.g. Veterinary Medicine, Practical Nurse Education, Auto Mechanics, and Machinist) will be required to purchase special items of apparel and/or equipment such as lab jackets and tools, etc. These items may be purchased in the student bookstore.

Late Registration Fee

A late registration fee of $3.00 will be charged all students who register after the registration day as specified in the catalogue and school calendar.

Vehicle Registration

Students using the campus parking facilities will be required to register their vehicle. A numbered sticker will be issued to be placed on the vehicle. Registration of more than one vehicle will require the payment of 25¢ for each additional vehicle.

Breakage Fee

Breakage, damage, or loss due to negligence, carelessness, or other mishandling of school supplies, materials, or equipment by students is the responsibility of such students. They will be required to pay for such items and may be subject to disciplinary action.

Refund Policy—Tuition

Tuition refund for students shall not be made unless the student is, in the judgment of the institution, compelled to withdraw for unavoidable reasons. In such cases, two-thirds (⅔) of the student's tuition may be refunded if the student withdraws within ten (10) calendar days after the first day of classes. Tuition refunds will not be considered after that time. Tuition refunds will not be considered for $5.00 or less, except if a course fails to materialize. In cases where courses or curricula fail to materialize, all of the student's tuition shall be refunded.

Where a student, having paid the required tuition and fees for a quarter, withdraws from the institution before the end of the quarter and the reasons for the withdrawal are found excusable by the institution's administration, the student may be allowed credit for unrefunded tuition and fees if he applies for readmission during any of the next four calendar quarters and petitions in writing to be allowed such credit.

Where a student, having paid the required tuition and fees for a quarter, dies during that quarter, (prior to or on the last day of examinations) all tuition and fees for that quarter may be refunded to the estate of the deceased.

Graduation Fee

A graduation fee is determined for each graduation. It will be approximately $8.00 for those graduating in the spring and $4.00 for those graduating in the summer.

FINANCIAL ASSISTANCE

Central Carolina Technical Institute has available several types of financial aid for students who need assistance meeting financial requirements while pursuing their education. Awards are made on a first-come basis, subject to the availability of funds. Students are, therefore, urged to apply early. No award is made until a student has completed all of the admission requirements and has been accepted for enrollment into a specific program.

A Financial Aid committee composed of the Financial Aid officer, one representative from the Business Office, one from the Student Services Office, a faculty member, and a student meets periodically, beginning in the early spring and summer, to consider requests and to make awards. After school starts, the requests are usually handled by the Financial Aid Officer who, in turn, reports to the full committee.

Students who encounter financial difficulty at any time during their stay at Central Carolina Technical Institute are urged to confer with the Financial Aid Officer at once.

The types of aid available are as follows:

A. Aid funded primarily with money from the Federal Government for which there is no repayment:

   1. **The Basic Educational Opportunity Grant**—The Basic Educational Opportunity Grant Program was authorized by the Education Amendments of 1972 which was passed by Congress and signed into law in June of 1972. This new program provides for the payment of Basic Grant awards to students attending eligible institutions of higher education and is intended to be the "floor" of a student's financial aid package. All other sources of aid will be given in addition to the Basic Grant.
   2. **Supplemental Educational Opportunity Grant**—Funds made available through provision of the Higher Education Act of 1965. It provides grants to deserving students. Grants are usually "packaged" with other types of aid.
   3. **Work Study**—This program provides part-time jobs to students who qualify. The jobs may be on campus or off campus with non-profit agencies or organizations.
   4. **Leep Awards**—Funds which are available to students enrolled in the Law Enforcement course under the provision of the Omnibus Safe Streets and Crime Control Act of 1968. Two types of funds are awarded:
      (1) Loans for tuition and fees to full-time students with a "forgiveness clause" for students who pursue law enforcement work upon graduation.
      (2) Grants awarded to police officers who are presently employed, but wish to upgrade themselves.

B. Aid funded with money from Federal, State and Local sources for which there is a specific repayment provision:

1. **College Foundation**—As a private non-profit corportion providing educational loans to North Carolina residents. The foundation also administers the Bryan College Foundation monies. Students may borrow up to $1500 which is secured by a promissory note. The U. S. Office of Education pays the interest during the enrollment, grace and deferment periods.
2. **Pat Mann Loan Fund**—This fund is restricted to students in the Practical Nurse Education program. It was started by the Sanford Jaycees as a memorial to Patricia Mann of Sanford. No interest is charged during school and for six months after leaving. However, the amount of loan will carry 6% interest and the entire loan should be paid off within 12 months from the date of graduation or leaving.
3. **Seymore Loan Fund**—Set up by the Lee County Cancer Society in honor of the late George C. Seymore. This fund is restricted to Practical Nurse Education students. Repayment is to begin within 90 days after leaving school and to be completed within 24 months. The present rate of interest is 6%.
4. **The Steffee Loan** is a contribution to the Student Aid Program through the generosity of Dr. and Mrs. C. H. Steffee of Southern Pines. The money is to be used first for North Carolina residents who are enrolled in the Veterinary Medical Technology program. Second priority shall be to other students in the Veterinary Medical Technology program. Funds not needed by Veterinary Medical Technology students may be used to assist other North Carolina students enrolled at the Institute.

   Proceeds from this fund may be borrowed without interest to qualified students. Maximum amount shall not exceed tuition, fee and book costs for an academic year. Students shall execute a note for the amount borrowed.

   Money borrowed is to be repaid completely within 12 months after leaving school in order that other students may use the fund.

C. Named Scholarships administered by the Financial Aid Office:

1. **First-Citizens Bank Scholarship**—Scholarship totaling $200 annually awarded to students who qualify on the basis of financial need.
2. **Southern National Bank Scholarship**—Scholarship totaling $100 annually awarded to students who qualify on the basis of financial need.
3. **Lee County Medical Auxiliary Scholarship**—This scholarship is restricted to Practical Nurse Education students from Lee County who need assistance for tuition or books.
4. **Alumni Scholarship**—This scholarship is given by the Alumni Association to a needy and worthy student who meets the required criteria.
5. **Business and Professional Women's Association Scholarship**—This scholarship is given by the Sanford Business and Professional Women's Club to assist worthy students to attend CCTI.

D. Veterans Benefits:

Qualified veterans and wives and children of deceased veterans may be admitted and approved to receive educational benefits, providing they meet requirements established by the Veterans Administration. Veterans eligible to attend technical or vocational programs may do so under the Veterans' Readjustment Benefits Act of 1966.

The Institute is approved for the training of veterans under Public Law 16 of the 78th Congress and under Public Law 550 of the 82nd Congress, and Chapter 34, Title 38, United States Code.

E. Miscellaneous:

1. **Social Security**—Benefits may be paid for students under 22 years of age who had one or more deceased parents that were covered by Social Security. Contact the nearest Social Security Office in the area.
2. **Vocational Rehabilitation**—Vocational Rehabilitation is available to certain handicapped students. This is a cooperative effort with the N.C. Department of Public Instruction.
3. **C.E.T.A.**—Funds available to students from low income families through the Employment Security Commission. The student may be paid a living allowance plus tuition and fees. Contact should be made with the nearest Employment Security Commission Office.
4. **N. C. Veteran's Scholarship**—The State of North Carolina has provided scholarships for the children of certain categories of deceased or severely disabled war veterans. There are two types of scholarships with the determination of types made by the North Carolina Department of Military and Veterans affairs. The "Full" scholarship covers tuition, mandatory fees and a reasonable room and board allowance. A "Limited" scholarship covers tuition and mandatory fees.

All requests for student aid should be made to:
Financial Aid Officer
Central Carolina Technical Institute
1105 Kelly Drive
Sanford, N.C. 27330

ACADEMIC INFORMATION

Orientation

All new full-time students are expected to participate in an orientation program conducted by members of the faculty, staff and Student Government Association. Part-time students are urged to participate also. The purpose of orientation is to acquaint the student with the administrative personnel, faculty, and student leaders. The regulations, policies and priviledges of the Institute as set forth in the catalogue are discussed and interpreted.

Registration

The Institute operates on a quarter system, and each quarter is eleven weeks in length. Curriculum students must register at the beginning of each quarter. All students are expected to register during the time specified for that purpose on the school calendar.

Each quarter returning students may pre-register during the three day examination period for the subsequent quarter.

Course Load

Students enrolled for 12 or more quarter credit hours are designated as full-time students. Normally, the course load range is from 16-22 quarter credit hours.

Students may take no more than 23 quarter credit hours without special permission of their advisor and/or counselor. No student will be permitted to register for more than 26 credit hours per quarter.

Students experiencing academic difficulty will be advised to take a reduced course load. Students employed full or part-time may also be advised to take a reduced course load contingent upon their academic standing.

Audit of Courses

A student who desires to take a course without credit may choose to audit the course by executing the regular registration processes and paying full tuition. The audit student will not receive a grade and cannot change the course from audit-to-credit or credit-to-audit after registration.

The word "audit" will be written on the Enrollment, Attendance and Grade card by the student during registration. Auditing a course is subject to permission of the instructor and is contingent upon space available in the class.

Advisors

Students are assigned advisors at the beginning of each academic year. The roll of the advisor is to assist the student in making academic decisions.

Transfer Credit

Transfer credit from other institutions within the Department of Community Colleges will be accepted, provided the course has been passed with a grade of "C" or better and provided such course is required by Central Carolina Technical Institute for graduation.

Other transfer credit and credit from proficiency examinations will be accepted, not to exceed 50% of the required and elective subjects, provided that the source and nature of such credit is approved by the Registrar. Consideration will be given for previous educational and work experience and evaluation of this experience will be made to determine if the student is to be exempt from certain courses at Central Carolina Technical Institute. Credit will be given in the event that the student meets the stated requirements. Appropriate instruments of evaluation will be given to determine if the student is proficient in a given area.

A veteran student may apply for credit toward graduation for training received under any of the armed forces college training programs. Credit may also be granted for specialized and technical training done under the auspices of the armed forces and courses taken through USAFI.

Credit by Examination

Advanced placement is offered to those students who because of their demonstrated abilities are qualified to accelerate their studies. In numerous courses offered at CCTI, proficiency tests are given or can be requested for students who already have mastery of the subject matter contained within a given course. Such tests are generally administered during the drop-add period at the beginning of each quarter. Permission for such an examination must be obtained from the appropriate Department Chairman with the Dean of Instruction or the Director of Occupational Education concurring.

Prerequisites

The student must meet the prerequisite requirements for a course or be approved to enter the course by the major area instructor or department chairman.

Grading System

Central Carolina Technical Institute operates on a required-subject quality point system in the curriculum areas, with the provision that all subjects must be completed with satisfactory grades if the student is to be awarded a certificate of completion or diploma. The grading system set forth below is followed for all subjects in curriculum areas.

Letter Grade	*Meaning*	*Quality Points Per Credit Hour*
A	Excellent	4
B	Good	3
C	Average	2
D	Marginal	1
F	Failure	0
I	Incomplete*	
W	Withdrew	

* Incomplete due to no fault of the student; i.e., sick at examination time, deficient in outside work with valid excuse. A student wishing to remove an incomplete must properly execute "Agreement to Remove Incomplete" (Form 6-72).

Removal of Incomplete

Curricula at CCTI are designed so that under normal circumstances a student can complete curriculum requirements within a specified time. Recognizing one's individuality, provisions have been made for the student to complete work within his own capabilities.

These provisions permit the instructors to assign incompletes to those students who, for varying reasons, need additional time; however, incompletes will be assigned with discretion.

A student receiving an incomplete must remove it by the end of the next regular quarter for which he has enrolled or re-enroll for the course in which the incomplete was received.

A student enrolled in packaged courses must complete 75% of the packages before registering for the sequential course.

An incomplete received during the quarter prior to the quarter of graduation must be removed by the mid-term of the quarter in which the student graduates.

Extremely unusual and extenuating circumstances may be cause for an extended time to remove an incomplete. These circumstances must be determined by the instructor and student. No student can graduate with an "I" on his records.

It is the *student's responsibility* to make arrangements to remove incompletes.

A student who is planning to remove an incomplete should file, in writing, (using the appropriate form and procedure) by the end of the drop-add period of the succeeding quarter in which the incomplete was received, his plans for removing the incomplete.

If the student fails to take action as and when prescribed, the instructor will turn in the "AGREEMENT TO REMOVE AN INCOMPLETE" marked "Plans not made to remove incomplete—student must re-take course."

Withdrawals

A student who wishes to withdraw from school during the academic year should complete a withdrawal form through the Student Services Office. This will protect the student's scholastic records and his rights to re-enroll and transfer credits.

Readmission

When a student withdraws, he may re-enter at the beginning of a quarter which offers courses for which he is eligible.

Academic Standards

A student is scholastically eligible for graduation when he has completed all required courses in the respective curriculum with an overall average of 2.0 and a 2.0 in his major area of study.

Graduates will be awarded appropriate evidence of completion in all areas.

President's List, Dean's List, and Honor Graduates

A student will be announced as a President's List student if he is enrolled in a full-time curriculum, receives all grades of A (4.0 GPA), and has no grade of "I" during that quarter. A student will be announced as a Dean's List Student if he is enrolled in a full-time curriculum, receives a 3.0 GPA or higher during a school quarter, and has no grade lower than a "C" or an "I" during that quarter. Students graduating with an average of 3.0 or higher will be announced as Honor Graduates.

Transcripts

A student may request in writing that a signed and sealed official copy of his transcript be sent to .another institution, agency or prospective employer. Students also may request, for their own use, unofficial transscripts from the office of the registrar. No transcript or other information about a student will be released without his written permission.

Graduation

Graduation exercises are held annually at the close of the spring and summer quarters. The student must apply for his degree or diploma at the beginning of the quarter of his scheduled completion of course work. Participation in the graduation exercises is required of all students.

CONDUCT AND STANDARDS

The Central Carolina Technical Institute has a genuine concern for the integrity of all students enrolled. Students are required to conduct themselves in a mature and responsible manner.

Attendance

Students are expected to attend all scheduled classes for which they are registered. Although special circumstances may cause a student to be absent, regular attendance is essential to satisfy regular course objectives. All work missed during absences must be made up to the satisfaction of the instructor involved. Failure to make up work which is missed will adversely affect the student's final grade for the course. To receive credit for a course, a student should attend 80% of class, lab and shop hours.

Students who anticipate an absence should contact their instructor before the class meets. Should this prior notice to the instructor be impossible, the student should expect to explain his absence upon his return to class.

Excessive tardiness will be dealt with in manner similar to that for absences. Three tardies constitute one (1) absence. Students who are 10 minutes or more late will be marked absent for that class period.

Dropping Students from Class Roll

Curriculum Students: After the fifth consecutive absence, the student will be dropped from the class roll. His grade enrollment card will be turned in to Student Services.

To be re-admitted: The student must re-enroll for the courses in Student Services (subject to the approval of the instructor).

All work missed during this period must be made up to the satisfaction of the instructor.

Regardless of this condition, the 80% attendance rule still stands.

Code of Conduct

The following code of conduct applies to all students who are enrolled in this institution:

1. Each student is held responsible for information published through notices and announcements placed on bulletin boards.
2. Students who negligently lose, damage, destroy, sell, or otherwise dispose of school property placed in their possession or entrusted to them will be charged for the full extent of the damage or loss and are subject to disciplinary action.
3. Under no conditions will alcoholic beverages, liquors, or narcotics be permitted in or on the school property. No one under the influence of alcohol or narcotics will be allowed on school premises. Any violation of this regulation will result in expulsion from the Institute on the first offense.
4. Students who engage in such acts as stealing, gambling, profane language, personal combat, and possession of firearms and dangerous weapons are liable to disciplinary action.
5. Smoking and drinks are prohibited in all carpeted areas, and *no smoking* is permitted in areas specifically designated. Smoking may be permitted in other areas provided the instructor and no member of the class objects.
6. Students are expected to dress appropriately for the occasion. This includes covering of the torso and shoes or sandals.
7. Students are asked not to bring children to class with them.
8. Vehicles for transportation to and from the Institute will park only in designated areas. Vehicles will be operated safely, moderately, and courteously. The speed limit on the campus is 10 M.P.H. Vehicles will be registered with the Business Office at the first occasion they are used on campus grounds (night students excluded).
9. Violators of traffic and parking regulations are subject to a fine for each violation. Funds derived from these fines are placed in the student activity fund.
10. The Institute is required to revoke all scholarships and grants of funds for assistance of students who are convicted, enter a plea of guilty or nolo contendere to a charge of riot, inciting a riot, trespassing or the seizure of the buildings or facilities on the campus.

Discipline

Normal classroom discipline is the responsibility of the instructor. Action of a more serious nature is handled by the Dean of Student Services.

When a student has been dismissed for disciplinary reasons, applications for readmission must be made to the Dean of Student Services. The decision for readmission will be made by a committee composed of the advisor of the student and members of the administrative staff.

Due Process

Local Board policies provide for appeal procedures. Any decision, whether made by an instructor or the Dean of Student Services, may be appealed through the Dean of Student Services to the President and the Board of Trustees. Such appeal should be in writing and need only to state the basic facts of the case.

STUDENT ACTIVITIES

Central Carolina Technical Institute makes every effort to surround the student with activities and services conducive to intellectual growth and worthwhile use of leisure time. In return, the student is expected to conform with established policies and devote his efforts to his personal improvement and the good of the institution. Membership in all student organizations shall be open to all students without regard to race, creed, color, or national origin. The following is a brief statement of the activities and services available to the student.

Student Government Association

Legislature, executive, and judicial authority, insofar as student affairs are concerned, is the responsibility of the student government. The student government operates under the supervision of the Student Service Office and serves as the organ of the students in their relations with the officials of the Institute. The president of the SGA is elected for the year during the Spring Quarter of the previous year and the remaining officers are elected by the first week in October.

Student Handbook

The Student Handbook is published each year by the Student Government Association with the assistance of the Student Services Office. The purposes, rules, regulations, activities, and policies governing student affairs at CCTI are found in the Student Handbook. Each student should read the handbook prior to his/her admittance to CCTI.

Newspaper

The Rambling Centaur is published by the newspaper staff of the student government and is available to the student body through the Student Services Office. The cost of the newspaper is included in the student activity fee and is free.

Annual

The Cencaro is published by the annual staff made up of students and is available to all students. Supervision and guidance in its publication is provided by the Student Services Office. The cost is included in the activity fee for all students who enroll in the fall quarter and at a cost of $7.00 to any student enrolling in subsequent quarters.

Basketball

Central Carolina Technical Institute sponsors a Men's Basketball Team that plays on an intercollegiate level through the Piedmont Athletic Conference. The Women's Basketball Team participates in the Lee County Recreation League and also plays a few intercollegiate games. To participate, a student must be enrolled as a full-time student and be in good academic standing. The financial support for the teams comes entirely from the activity fee.

Golf Team

CCTI fields a golf team that participates on an intercollegiate level. The bulk of the expense for this activity will be provided through the student activity fee. To be eligible, a student must be enrolled full-time and be in good academic standing.

Softball

CCTI sponsors both a Men's and Women's Softball Team in the Lee County Recreation League. To participate, a student must be in good academic standing. The financial support for the teams comes entirely from the activity fee.

Tennis

CCTI started a tennis team during the Fall Quarter of 1974. The team played intercollegiate matches on a limited basis. If there is sufficient interest, the team will be continued and the number of matches increased. Any full-time student may participate.

Bowling

An intramural league of men and women is operated through the cooperation of the local bowling alley. To participate, a student must be enrolled full-time and be in good academic standing. Teams vary in size and number from year to year depending on the interested number of students. The league generally operates for a minimum of 10 weeks and trophies are presented at the end. The cost of bowling is shared in part by the student while the balance is provided by the activity fee.

Piedmont Athletic Conference

CCTI belongs to the Piedmont Athletic Conference along with six other technical institutes and community colleges. With the exception of basketball, all competition in the PAC consists of one day tournaments. Throughout the school year, one day tournaments are held in bowling, golf, tennis, softball, volleyball and any other events in which enough schools desire to participate.

Cheerleaders

The cheerleaders attend all CCTI basketball games to encourage school spirit. Tryouts for cheerleaders are open to all full-time students in good academic standing.

Field Days

Scheduled at the beginning and ending of each school year, this school function consists of outdoor activities, games, and sports. Curricula enter teams in each of the major events. The events currently being held are basketball, softball, volleyball, horse shoes, and relay races. These activities are normally followed by a cookout for the entire student body and faculty with the expense being covered by the activity fee.

District IV Field Day

The District IV Field Day had its beginning in the Spring Quarter of 1974. The Field Day allows the seven technical institutes and community colleges in District IV to compete with each other in various events. Events included are softball, tennis, track, chess, ping-pong, horseshoes, and archery. The Field Day is hosted by a different school each year. Any full-time student may participate.

Intramural Sports

At various times throughout the year, competition among students is provided through intramural sports. Included is competition in pool, ping-pong, football, volleyball, and softball. Any full-time student who is in good academic standing is eligible to participate.

Circle K Club

Circle K is an international organization of college students affiliated with Kiwanis International and is a service-oriented club. The CCTI Circle K Club was chartered in 1972 and was the first technical institute Circle K Club chartered in North Carolina. All students enrolled full-time, in good academic standing, and of high moral and ethical character are eligible for election to membership.

Les Soeurs

Les Soeurs is a service organization open to all full-time students of CCTI. Les Soeurs is dedicated to the idea that women are best able to serve by giving their time and talents to others.

Phi Beta Lambda

PBL is a national organization for all young adults in post-secondary institutions enrolled in business education programs and who are in good academic standing at CCTI.

Future Secretaries Association

FSA is an affiliate of National Secretaries Association, an international organization, and was chartered in December, 1971. It was the first such organization of its type in the Sanford area and membership is open to all students enrolled at CCTI who are preparing for work in the secretarial field.

Auto Club

The Central Carolina Tech Auto Club was formed during the Fall Quarter of 1973 with membership open to all interested students enrolled full-time in the Automotive program. The purposes of this club are to encourage good citizenship, pride in work, demonstration of talent, service to school and community, and assist in recruiting. The cost to the individual student will be determined by the club during the month of September. Each automotive student is encouraged to check into this club which will have a unique organizational structure designed to appeal to automotive students.

Flea Club

The Future Law Enforcement Association Club is an organization for all students enrolled in the Law Enforcement curriculum. Law Enforcement students will be notified of meetings and membership requirements through their advisors during the early portion of the school year.

Miss CCTI

Each year one coed is selected as the official representative of CCTI to various functions in Sanford and Lee County. The method of selection is a matter of Student Government Association Policy. This policy will be drawn up by the Executive Committee and approved by the Student Senate before it is given to the entire student body. Copies of the approved policy will be distributed to the faculty advisors and posted on the bulletin boards at the appropriate time.

Dances

Several dances, under the sponsorship of the SGA, are held each year depending upon the wishes and desires of the students. A major portion of the cost of these is borne by the student activity fee.

Who's Who

CCTI has been designated an institution which is allocated listings for *Who's Who Among Students in American Junior Colleges*. The number is usually received by CCTI in early spring. The method of selecting these students is in part determined by the National Committee and in part by the SGA. An official statement of the selection process will be published by the SGA prior to the selection. In general, students selected for listing must be scheduled for graduation during that year (spring or summer) and must have demonstrated qualities of scholarship at CCTI and leadership and participation in school and/or community activities.

Special Events

The Student Government may sponsor other activities such as socials, films, speakers, and related activities that will be of interest to the students. When such occasions arise, students are notified in advance and encouraged to participate.

Other Activities

Various other activities have been given attention through student suggestions. Some of these for which non-credit classes or clubs could be set up to include chess, bridge, dancing, drama, chorus, and Black studies. These or any other activities will be considered if there is enough student interest. It is the desire of the Student Services Office to provide, within budgetary limits and school policy, those activities desired by students which lead to personal development of the individual.

LEARNING RESOURCE CENTER

The Learning Resource Center, completed in 1970, encompasses the library, guided studies, the adult high school program, and the media center. The staff includes the LRC director, librarian, library technician, media technician, guided studies coordinator, adult high school coordinator, adult high school recruiter, and secretary. The center is open from 8:00 a.m. to 10:00 p.m. Monday through Thursday and 8:00 a.m. to 5:00 p.m. on Friday.

The Learning Resource Center is a service agency, providing aid both to the students and to the faculty. In addition, the center is available to any community citizen who desires to use it. Faculty, students, and community citizens are encouraged to suggest programs and materials which could be offered by the LRC.

Library Services

The library resources include over 14,000 books, 200 periodicals and 16 newspapers. Numerous audio-visual materials in the form of slides, filmstrips, films, filmloops, tapes, records, cassettes, transparencies and video tapes are available for use. A dial retrieval system enables students to listen to a variety of programs relative to individual curriculums and general interests. A microfilm collection of local historical records has been acquired from the N. C. Office of Archives and History for use by patrons.

Guided Studies

The guided studies program provides an opportunity for students to obtain special help in accomplishing their educational objectives. The area is staffed by a guided studies coordinator, learning lab coordinators, and a recruiter who serve as facilitators in the learning process. The area contains commercially prepared and instructor prepared programmed materials and audio-visual materials that cover practically every academic skill or subject that is taught from the elementary school level through early college level.

The guided studies area is used for several purposes: (1) to assist curriculum students in accomplishing course objectives by providing individualized or small group help in addition to class time; (2) to provide an opportunity for adults to complete their high school education and; (3) to allow adults in the community to study subjects of interest to them.

High School Completion

Adults may complete their high school education through one of two program: the High School Equivalency Program or the Adult High

School Diploma program. These programs are available to all non-high school graduates at least eighteen years of age who have been out of public school 6 months or more.

Adults may earn a high school equivalency certificate by successfully completing The General Educational Development tests (GED). The General Educational Development tests are designed to measure a person's knowledge and skill in five areas. Test one measures ability to use correct and effective English in written expression. Test two, three and four measure ability to read, understand and interpret material in social studies, natural sciences and literature, respectively. Test five measures the ability to solve problems in mathematics.

The Equivalency Certificates are issued by the North Carolina State Board of Education and are recognized almost without exception as the legal equivalent of a diploma from an accredited high school. There is no charge for taking the GED.

Adults may also finish high school by earning an Adult High School Diploma. The Department of Community Colleges in cooperation with the Department of Public Instruction has established procedures whereby adults heretofore deprived of the opportunity of completing high school may do so and receive a diploma.

This arrangement is contingent upon an agreement of affiliation between the Technical Institute in question and the local high school. Central Carolina Technical Institute now has signed agreements of this nature with the following high school systems: Sanford-Lee Public Schools, Chatham County, Harnett County and Moore County Schools. This means that when the adult student has completed the necessary studies at CCTI or one of the branch labs in Chatham or Harnett Counties, he or she is given an Adult High School Diploma by the appropriate school system.

Student Tutorial Program

The Student Tutorial Program supplies tutors to curriculum students and to adults who are completing their high school requirements.

Student tutors are trained and are highly proficient. They can lend valuable assistance in any subject area required by other students who need additional help in meeting course objectives. Tutors are available to adults who need help in obtaining their high school diploma or high school equivalency.

The Student Tutorial Program is located in the Learning Resource Center and is directed by the Guided Studies Coordinator.

Media Development

The media technician is available to help the faculty in the design and production of graphic, photographic, photographic and audio materials which are not commercially available. Thus, media is developed to accomplish course objectives.

CONTINUING EDUCATION

Continuing Education Course

A continuing education course may be defined as a part-time course which does not count toward a diploma or degree, but for which a certificate of completion may be given. Extension courses may be academic, technical, vocational or for general self-improvement.

Admission Requirements

Occupational educational continuing education courses are designed to serve adults who are employed or are seeking employment at the skilled, technical and sub-professional levels. Any adult 18 years old or older who needs training or re-training, or who can otherwise profit from the proposed course, may be enrolled. Enrollees who are employed normally attend training during their non-working hours to increase their skills and understandings, to improve their competency and qualify for advancement.

Program Courses

Firemanship Training
Police Training
New Industry Training
Nursing Aid
Humanities
Economics
Electrical
Agriculture
Distribution and Marketing
Health and Safety
Home Economics
Management Development
Business
Vocational and Technical Courses
Adult Basic Education

Continuing Education Units Transcript

The Continuing Education Department maintains a permanent record on each student who takes a continuing education course. These records are available to students upon their request. Correspondence or phone calls should be directed to the Registrar.

ACCOUNTING

Purpose of Curriculum

Accounting is one of the fastest growing employment fields in America today, and the job outlook for good accountants seems bright for many years to come. These opportunities are the result of the tremendous business and industrial expansion in all parts of the country. Because of this emphasis, there is a growing need for trained people in the area of accounting to help managers keep track of a firm's operation. The Accounting Curriculum is designed to fill this need by offering students the necessary accounting theories and skills for entry into the accounting profession.

The duties and responsibilities of an accountant vary somewhat in different firms. Some of the things an accountant might do are: record transactions, render periodic reports, maintain cost records, make special reports, complete tax returns, audit the books, and advise management in areas of financial affairs.

Job Description

The graduate of the Accounting Curriculum may qualify for various jobs in business and industry leading to any of the following accounting positions: accounting clerk, payroll clerk, accounting machine operator, auditor, and cost accountant. This training plus further experience should prepare them to become office managers, accounting supervisors, and to fill other responsible positions in a business firm.

Course length—6 quarters.

Degree awarded—Associate in Applied Science.

		Hrs. Pr. Wk.		Qtr. Hrs.
	Course Title	Cl.	Lab.	Cr.
First Quarter				
ENG 101	Grammar	3	0	3
BUS 109	Business Mathematics	5	0	5
BUS 101	Introduction to Business	3	2	4
ECO 102	Economics	3	0	3
BUS 120	Accounting I	5	5	7
		19	7	22
Second Quarter				
ENG 102	Composition	3	0	3
BUS 121	Accounting II	5	5	7
BUS 115	Business Law	3	0	3
ECO 104	Economics	3	0	3
EDP 104	Introduction to Data Processing	2	2	3
		16	7	19
Third Quarter				
PSY 206	Applied Psychology	5	0	5
BUS 222	Accounting III	3	6	6
BUS 116	Business Law	3	0	3
BUS 102	Typing	2	3	3
BUS 239	Marketing	5	0	5
		18	9	22
Fourth Quarter				
ENG 204	Oral Communication	3	0	3
BUS 235	Principles of Management	3	2	4
BUS 225	Cost Accounting	3	4	5
	(Electives, 6 Cr. Hrs.)	6	0	6
		15	6	18

Fifth Quarter

ENG 206	Business Communications	3	0	3
BUS 110	Business Machines	2	3	3
BUS 123	Business & Managerial Finance	3	2	4
BUS 224	Intermediate Accounting	5	2	6
BUS 229	Tax Accounting I	3	4	5
		16	11	21

Sixth Quarter

ENG 103	Report Writing	3	0	3
BUS 269	Auditing	4	2	5
SOC 102	Sociology	5	0	5
	(Electives, 6 Cr. Hrs.)	6	0	6
		18	2	19

***RECOMMENDED ELECTIVES**

BUS 219	Credit Procedures & Problems	3	0	3
BUS 247	Business Insurance	4	0	4
BUS 263	Payroll Taxes	3	0	3
BUS 245	Retailing	3	0	3
BUS 271	Office Management	3	0	3
BUS 103	Typing II	2	3	3
BUS 104	Typing III	2	3	3
BUS 226	Intermediate Accounting II	3	2	4
BUS 233	Personnel Management	4	0	4
BUS 270	Advanced Accounting	3	2	4
BUS 272	Principles of Supervision	4	0	4

*The Accounting student may select elective credits from the list of recommended electives or from other business-related courses approved by the student's advisor.

AGRICULTURE SCIENCE AND MECHANIZATION (WITH TECHNICAL SPECIALTY OPTION)*

Purpose of Curriculum

Production agriculture is a highly competitive business and changes daily. Today's farmers must keep abreast of these things.

This curriculum is designed to train farmers to develop managerial abilities necessary for efficiency in farming; to train beginning farmers in the proper procedures and techniques of farming; and to aid farmers in further developing an awareness of their responsibilities as a citizen in the community.

Job Description

Agriculture is a dominant factor in the existence of every human being. As less and less people assume the responsibility of feeding more and more people, the best techniques must be used.

Graduates of this curriculum can get or continue employment on practically any farm as a laborer, manager, or owner-manager.

Course length—12 quarters.

Degree awarded—Associate in Applied Science.

	Hrs. Per Wk.		Qtr. Hrs.
Course Title	Cl.	Lab.	Cr.
First Quarter			
AGR 101A Farm Tractors I	0	5	2
AGR 102 Farm Business Management	2	0	2
AGR 109 Soil Science	3	0	3
	5	5	7
Second Quarter			
AGR 101B Farm Tractors II	2	3	3
AGR 105 Pastures and Forage Crops	2	0	2
AGR 108 Beef Production	3	0	3
	7	3	8
Third Quarter			
AGR 106A Techniques of Welding I	2	3	3
AGR 110 Poultry Production	3	0	3
AGR 142 Agriculture Finance	2	0	2
	7	3	8
Fourth Quarter			
AGR 106B Techniques of Welding II	2	3	3
AGR 104 Swine Production	3	0	3
AGR 144 Opportunities in Agricultural Business	2	0	2
	7	3	8
Fifth Quarter			
AGR 114 Farm Electrification	0	5	2
AGR 117 Feeds and Feeding Farm Animals	2	0	2

AGR 118	Feed Grain Crops	1	0	1
AGR 123	Fruit Production	2	0	2
		5	5	7

Sixth Quarter

AGR 122	Farm Machinery Repair and Maintenance	2	3	3
AGR 130	Pesticides	3	2	4
		5	5	7

Seventh Quarter

AGR 128A	Farm and Home Construction I	0	5	2
AGR 124	Plant Propagation	3	0	3
AGR 126	Farm Forest Management	2	0	2
		5	5	7

Eighth Quarter

AGR 128B	Farm and Home Construction II	2	3	3
AGR 132	Livestock Diseases and Parasites	3	2	4
		5	5	7

Ninth Quarter

AGR 133	Farm Water and Plumbing Systems	0	5	2
AGR 136	Practical Mathematics	3	0	3
AGR 138	Farm Accounting Procedures	2	0	2
		5	5	7

Tenth Quarter

AGR 134	Crop Production	3	0	3
AGR 135	Agricultural Law	3	0	3
AGR 146	Farm Water Conservation	3	0	3
AGR 147	Local Government and Agencies	1	0	1
		10	0	10

Eleventh Quarter

AGR 137	Home Appliances	0	5	2
AGR 139	Fertilizers and Lime	3	0	3
AGR 140	Vegetable Production	2	0	2
		5	5	7

Twelfth Quarter

AGR 141	Surveying	2	3	3
AGR 145	Small Engine Repair	2	3	3
		4	6	6

*The following additional subjects are provided for the student who pursues an Associate of Applied Science Degree:

ENG 101	Grammar	3	0	3
ENG 102	Composition	3	0	3
ENG 103	Report Writing	3	0	3
ENG 204	Oral Communication	3	0	3
SOC 102	Principles of Sociology	5	0	5

AUTOMOTIVE MECHANICS

Purpose of Curriculum

This curriculum provides a training program for developing the basic knowledge and skills needed to inspect, diagnose, repair, or adjust automotive vehicles. Manual skills are developed in practical shop work. thorough understanding of the operating principles involved in the modern automobile comes in class assignments, discussion, and shop practice.

Complexity in automotive vehicles increases each year because of scientific discovery and new engineering. These changes are reflected not only in passenger vehicles, but also in trucks, buses, and a variety of gasoline-powered equipment. This curriculum provides a basis for the student to compare and adapt to new techniques for servicing and repair as vehicles are changed year by year. One complete quarter is devoted to diesel engines and fuel systems which broadens job opportunity.

Job Description

Automobile mechanics maintain and repair mechanical, electrical, and body parts of passenger cars. Mechanics inspect and test to determine the causes of faulty operation. They repair or replace defective parts to restore the vehicle or machine to proper operating condition. They use shop manuals and other technical publications.

Automotive mechanics in smaller shops usually are general mechanics qualified to perform a variety of repair jobs. A large number of automobile mechanics specialize in particular types of repair work. For example, some may specialize in repairing only power steering and power brakes, or automatic transmissions. Usually such specialists have an all-round knowledge of automotive repair and may occasionally be called upon to do other types of work.

Course length—7 Quarters—8th Quarter Optional
Degree awarded—Diploma

Course Title	Hrs. Pr. Wk. Cl.	Lab.	Shop	Qtr. Hrs. Cr.
First Quarter				
AUT 1101A Engine Tuneup I	1	0	3	2
AUT 1101B Lubrication	0	0	3	1
PME 1126 Small Engine Servicing	2	0	3	3
MAT 1101 Fundamentals of Mathematics	5	0	0	5
ENG 1101 Reading Improvement	5	0	0	5
DFT 1101 Automotive Schematics and Diagrams	1	0	3	2
	14	0	12	18
Second Quarter				
AUT 1102A Charging and Starting Systems	2	0	6	4
AUT 1102B Engine Fuel Systems	3	0	9	6

MEC 1112	Machine Shop	2	0	3	3
PHY 1101	Applied Science	3	2	0	4
		10	2	18	17

Third Quarter

AUT 1101C	Brake Systems	1	0	9	5
AUT 1103	Steering and Suspension Systems	2	0	6	4
AUT 1104	Wheel Alignment and Balancing	3	0	9	6
		6	0	24	15

Fourth Quarter

AUT 1105	Internal Combustion Engines	3	0	9	6
AUT 1106	Engine Tuneup II	2	0	6	4
AUT 1215	Exhaust Emission Controls	1	0	3	2
		6	0	18	12

Fifth Quarter

AUT 1107	Automotive Power Trains	2	0	6	4
AUT 1108	Automatic Transmissions	2	0	6	4
WLD 1101A	Welding	2	0	6	4
AUT 1112	Power Accessories	1	0	3	2
		7	0	21	14

Sixth Quarter

PME 1103	Diesel Engine Servicing	2	0	9	5
PME 1106	Diesel Fuel Systems	2	0	9	5
ENG 1102	Communication Skills	3	0	0	3
PSY 1101	Human Relations	3	0	0	3
		10	0	18	16

Seventh Quarter

AUT 1109	Troubleshooting Automotive Systems	1	0	9	5
SPA 1298	Special Problems	0	0	9	3
AHR 1101	Automotive Air Conditioning	2	0	6	4
BUS 1103	Small Business Operations	3	0	0	3
		6	0	24	15

Eighth Quarter - (Elective)

Specialized Electives	5	6	12	12

Specialized electives totaling a minimum of 22 contact hours and 12 credit hours will be offered on an optional basis for students desiring additional training in a specialized field. The 8th quarter program will be tailored to meet the specific needs and interest of the individual student including such areas as:

Service Management
Agency Management and Salesmanship
Diesel Engine
Internship

BANKING AND FINANCE

Purpose of Curriculum

The Banking and Finance Curriculum is designed primarily for banking employees and secondarily for others who wish to begin work toward an Associate in Applied Science Degree in Banking and Finance. Many bank employees are presently enrolled in American Institute of Banking Certificate Courses for professional development. These same courses, successfully completed, can now be transferred to Central Carolina Technical Institute and applied toward an Associate Degree in Banking and Finance.

Job Description

The graduate of the curriculum, in all probability, will be gainfully employed by a financial institution while enrolled in the prescribed courses. Graduates of this curriculum will be capable of performing most banking functions, after in-house training by the employer.

Course length—6 quarters.

Degree awarded—Associate in Applied Science.

Course Title	Hrs. Pr. Wk. Cl.	Hrs. Pr. Wk. Lab.	Qtr. Hrs. Cr.
First Quarter			
ENG 101 Grammar	3	0	3
MAT 110 Business Mathematics	5	0	5
AIB 120 Accounting I	4	0	4
ECO 102 Economics	3	0	3
AIB 202 Principles of Bank Operation	4	0	4
	19	0	19
Second Quarter			
ENG 102 Composition	3	0	3
EDP 104 Introduction to Data Processing	2	2	3
AIB 121 Accounting II	4	0	4
AIB 210 Money & Banking	4	0	4
AIB 111 Business Administration	4	0	4
	17	2	18
Third Quarter			
AIB 214 Effective Speaking	4	0	4
AIB 218 Psychology	4	0	4

AIB 212	Planning Management Development	0	2	1
AIB 231	Savings and Time Deposit Banking	4	0	4
AIB 205	Bank Management	4	0	4
		16	2	17

Fourth Quarter

SOC 102	Principles of Sociology	5	0	5
AIB 219	Credit Administration	4	0	4
AIB 206	Bank Letters & Reports	4	0	4
AIB 208	Conference Planning & Leadership	0	2	1
AIB 234	Loss Prevention	0	2	1
AIB 203	Bank Investments	4	0	4
		17	4	19

Fifth Quarter

AIB 233	Analyzing Financial Statements	4	0	4
AIB 259	Law & Banking	4	0	4
AIB 209	Installment Credit	4	0	4
BUS 232	Salesmanship	2	2	3
AIB 239	Bank Public Relations & Marketing	4	0	4
		18	2	19

Sixth Quarter

AIB 272	Supervision & Personnel Administration	4	0	4
AIB 213	Trust Functions	4	0	4
AIB 236	Home Mortgage Lending	4	0	4
AIB 235	Loan & Discount	3	0	3
AIB 204	Bank Management by Objectives	0	2	1
		15	2	16

Electives that may be substituted to meet appropriate certificate requirement:

BUS 102	Typing I	2	3	3
BUS 110	Business Machines	2	3	3
AIB 232	Agricultural Finance	4	0	4
AIB 123	Financing Business Enterprise	4	0	4
AIB 207	International Banking	4	0	4
AIB 237	Selling Bank Services	0	2	1
		16	8	19

Electives that may be substituted to meet appropriate certificate requirement:

BUSINESS ADMINISTRATION

Purpose of Curriculum

In North Carolina the opportunities in business are increasing. With the increasing population and industrial development in this State, business has become more competitive and automated. Better opportunities in business will be filled by students with specialized education beyond the high school level. The Business Administration Curriculum is designed to prepare the student for employment in one of many occupations common to business. Training is aimed at preparing the student in many phases of administrative work that might be encountered in the average business.

The specific objectives of the Business Administration Curriculum are to develop the following competencies:

1. Understanding of the principles of organization and management in business operations.
2. Understanding our economy through study and analysis of the role of production and marketing.
3. Knowledge in specific elements of accounting, finance, and business law.
4. Understanding and skill in effective communication for business.
5. Knowledge of human relations as they apply to successful business operations in a rapidly expanding economy.

Job Description

The graduate of the Business Administration Curriculum may enter a wide variety of business careers ranging from entry level clerical positions in sales and office work to positions as management trainees, supervisors, and commission salesmen or brokers. The duties and responsibilities of this graduate will depend on the type of business organization he chooses for employment. Positions are available in business areas such as advertising, banking, consumer credit, finance, retailing, wholesaling, travel and tourist industry, insurance, transportation, and communications.

Course length—6 quarters
Degree awarded—Associate in Applied Science

		Hrs. Pr. Wk.		Qtr. Hrs.
	Course Title	Cl.	Lab.	Cr.
First Quarter				
ENG 101	Grammar	3	0	3
BUS 109	Business Mathematics	5	0	5
BUS 101	Introduction to Business	3	2	4
BUS 120	Accounting I	5	5	7
ECO 102	Economics	3	0	3
		19	7	22
Second Quarter				
ENG 102	Composition	3	0	3
BUS 121	Accounting II	5	5	7
BUS 115	Business Law	3	0	3
ECO 104	Economics	3	0	3
EDP 104	Introduction to Data Processing	2	2	3
		16	7	19
Third Quarter				
PSY 206	Applied Psychology	5	0	5
BUS 222	Accounting III	3	6	6
BUS 116	Business Law	3	0	3
BUS 102	Typing	2	3	3
BUS 239	Marketing	5	0	5
		18	9	22

Fourth Quarter

ENG 204	Oral Communications	3	0	3
BUS 235	Principles of Management	3	2	4
BUS 225	Cost Accounting	3	4	5
BUS 232	Salesmanship	2	2	3
	(Elective, 3 Cr. Hr.)	3	0	3
		14	8	18

Fifth Quarter

ENG 206	Business Communications	3	0	3
BUS 110	Business Machines	2	3	3
BUS 229	Tax Accounting I	3	4	5
BUS 123	Business & Managerial Finance	3	2	4
	(Elective, 3 Cr. Hr.)	3	0	3
		14	9	18

Sixth Quarter

BUS 245	Retailing	3	0	3
ENG 103	Report Writing	3	0	3
BUS 243	Advertising	3	2	4
SOC 102	Sociology	5	0	5
	(Electives, 6 Cr. Hr.)	6	0	6
		20	2	21

***RECOMMENDED ELECTIVES**

BUS 271	Office Management	3	0	3
BUS 234	Salesmanship II	3	2	4
BUS 219	Credit Procedures & Problems	3	0	3
BUS 247	Business Insurance	4	0	4
BUS 263	Payroll Taxes	3	0	3
BUS 103	Typing II	2	3	3
BUS 104	Typing III	2	3	3
BUS 224	Intermediate Accounting	5	2	6
BUS 233	Personnel Management	4	0	4
BUS 272	Principles of Supervision	4	0	4

*The Business Administration student may select elective credits from the list of recommended electives or from other business-related courses approved by the student's advisor.

COLLEGE TRANSFER AND/OR GENERAL EDUCATION

(In Cooperation with Campbell College)

Purpose of Curriculum

The General Education Curriculum has two main purposes. One is to provide the student with two years of general education course work culminating in an Associate Degree in General Education. The second purpose is to provide the student with sixty-four (64) semester hours of college level work that will be transferable to any accredited college or university which accepts transfer credit from Campbell College.

The second purpose is achieved through a contractual agreement between Campbell College and Central Carolina Technical Institute, Sanford, N.C. Through this agreement, Campbell College will provide the instructional services for sixty-four (64) semester hours of course work on the campus of Central Carolina Technical Institute. These sixty-four (64) semester hours will normally be completed during two regular years or four semesters. When the student has completed all or part of the sixty-four (64) semester hours, application may be made to Campbell College or another accredited college or university that will accept these credits for transfer.

Entrance Requirements

In order the enter the General Education curriculum, the student must be a high school graduate or its equivalent.

COLLEGE TRANSFER AND/OR GENERAL EDUCATION

(In Cooperation with Campbell College)

	Hrs. Pr. Wk.		Sem. Hrs.
Course Title	Cl.	Lab.	Cr.
FIRST YEAR			
Fall Semester			
ENG 111 Composition	3	0	3
HIS 111 Western Civilization	3	0	3
MAT 150 Introductory Algebra	3	0	3
BIO 111 Basic Biology	3	3	4
HEA 111 Health	2	0	2
PED Physical Education	0	2	1
MLS 101 Military Science—U.S. Defense Establishment	1	0	1
	15	5	17
Spring Semester			
ENG 112 Composition	3	0	3
HIS 112 Western Civilization	3	0	3
MAT 160 Elementary Statistics	3	0	3
BIO 112 Human Biology	3	3	4
SPH 115 Public Speaking	2	0	2
PED Physical Education	0	2	1
MLS 102 Military Science—Intro. to Tactics & Oper.	1	0	1
	15	5	17
SECOND YEAR			
Fall Semester			
ENG 221 British Masters	3	0	3
HIS 221 American History	3	0	3
PSY 222 General Psychology	3	0	3
ART 131 Visual Arts	3	0	3
ECO 223 General Economics	3	0	3
	15	0	15

Spring Semester				
ENG 222	American Masters	3	0	3
ECO 224	General Economics	3	0	3
SOC 225	Principles of Sociology	3	0	3
EDU 221	Introduction to the Study of Education	3	0	3
PHY 111	Introductory Physics	3	3	4
		15	3	16

POSSIBLE ELECTIVES OR SUBSTITUTE COURSES

One or more of these three courses may be substituted for selected courses listed in the curriculum or taken during the summer if a sufficient number of students enroll.

GEO 113	Physical Geography	3	0	3
PHI 121	Introduction to Philosophy	3	0	3
GOV 229	National Government	3	0	3

CORRECTION TECHNOLOGY

Purpose of Curriculum

During the last decade, the area of correction has evolved into a more in-depth, complex profession requiring a variety of skill and special knowledge in working with persons who are supervised by correctional agencies. This curriculum will provide technical training, knowledge and skills for men and women to function as counselors, correction assistants or supervisors of individuals who have affiliation with correctional agencies. Through the application of training acquired in this program rehabilitation of correction clients should be expedited.

Job Description

Correction Technology will provide the necessary skills for one to work in positions as a guard, Correctional Programs Assistant I, Correctional Programs Assistant II, correctional program supervisor, or special training of instructors in correction. A graduate can find employment with a penal institution, a probation board, or with a board of parole.

Course length—7 quarters.

Degree Awarded—Associate in Applied Science.

		Hrs. Pr. Wk.		Qtr. Hrs.
	Course Title	Cl.	Lab.	Cr.
First Quarter				
ENG 101	Grammar	3	0	3
MAT 109	Criminal Justice Mathematics	5	0	5
PSC 101	Introduction to Law Enforcement & Criminal Justice	5	0	5
PSY 102	General Psychology	5	0	5
		18	0	18
Second Quarter				
ENG 102	Composition	3	0	3
POL 102	Government: National	5	0	5

PSY 206	Applied Psychology	5	0	5
PSC 115	Criminal Law I	5	0	5
SOC 102	Principles of Sociology	5	0	5
		23	0	23

Third Quarter

ENG 204	Oral Communications	3	0	3
POL 103	Government State and Local	5	0	5
PSC 110	Crime and Delinquency	5	0	5
PSC 225	Criminal Procedure	5	0	5
PSY 103	Adolescent Psychology	5	0	5
		23	0	23

Fourth Quarter

CJC 203	Correction	5	0	5
CJC 209	Correction Law	3	0	3
CJC 102	Criminology	5	0	5
		13	0	13

Fifth Quarter

CJC 212	Drugs	3	2	4
SOC 111	Social Problems	5	0	5
PSY 229	Abnormal Psychology	5	0	5
CJC 206	Community Relations	5	0	5
Elective		3	0	3
		21	2	22

Sixth Quarter

REC 245	Recreation Activities	2	3	3
CJC 207	Confinement Facilities Administration	3	2	4
CJC 250	Crime & Criminal Careers	3	0	3
CJC 234	Community Based Corrections	3	0	3
Elective		5	0	5
		16	5	18

Seventh Quarter

CJC 223	Correction Counseling	3	2	4
CJC 204	Paroles, Probations, Pardons	3	0	3
CJC 224	Rehabilitation	3	0	3
CJC 221	Correction Administration	3	0	3
Elective		3	0	3
		15	2	16

DRAFTING & DESIGN ENGINEERING TECHNOLOGY (MECHANICAL)

Purpose of Curriculum

This curriculum was prepared for the purpose of outlining a training program for students of mechanical drafting and design technology. There are certain indentifiable duties which are common to all technicians of this general classification and which comprise the basic areas of technical knowledge they need. This curriculum has been designed for training persons in the accepted performance of these basic duties that will be assigned and to enable the individual student to become proficient in a short time after he becomes employed in the industry.

Courses have been included to give a student the assurance and understanding that comes with education upon a broad base. The technician is associated with many levels of thought and expression—administrative personnel, scientists, engineers, skilled workmen—and must be able to communicate effectively with all levels. Courses containing essential information from related subject areas, such as mathematics, physics, and mechanics have been included in order to provide the student a better academic base for his training. Emphasis is placed upon ability to think and plan as well as drafting procedures and techniques.

Job Description

Mechanical drafting and design technicians are concerned with the preparation of drawings for design proposals, for experimental models and items for production use.

These technicians perform many aspects of drafting in a specialized field, such as the developing of the drawing of a section, sub-assembly or major component. Investigating design factors and availability of material and equipment, production methods and facilities are frequent assignments. They assist in the design of units and controls from specifications by utilizing drawings of existing units and reports on functional performance. They may draw components in industrial fields based on engineers' original design concepts or specific ideas. Also, they may be assigned as coordinators for the execution of related work of other design, production, tooling, material and planning groups. Technicians with experience in this classification may often supervise the preparation of working drawings.

These technicians are employed in many types of manufacturing, fabrication, research development and service industries. Substantial numbers also are employed in communications, transportation, public utilities, consulting engineering firms, and federal, state, and local governments.

Course length—7 quarters.

Degree awarded—Associate in Applied Science.

	Hrs. Pr. Wk.		Qtr. Hrs.
Course Title	Cl.	Lab.	Cr.
First Quarter			
MAT 101 Technical Mathematics	5	3	6
ELC 112A Electrical Fundamentals I	5	4	7
DFT 101 Drafting	0	6	3
ENG 101 Grammar	3	0	3
	13	13	19
Second Quarter			
MAT 102 Technical Mathematics	5	3	6
ELN 121 Electronics I	3	4	5
DFT 102 Drafting	0	6	3
MEC 101 Machine Processes	2	4	2
	10	17	16

Third Quarter

MAT 103	Technical Mathematics	5	3	6
DFT 204	Descriptive Geometry	2	4	4
DFT 103	Drafting	0	6	3
ENG 102	Composition	3	0	3
		10	13	16

Fourth Quarter (Summer)

PHY 101	Properties of Matter	3	2	4
ENG 204	Oral Communications	3	0	3
DFT 212	Jigs & Fixture Design	2	6	4
MEC 210	Physical Metallurgy	3	3	4
		11	11	15

Fifth Quarter

PHY 102	Physics Mechanics	3	2	4
SOC 102	Sociology	5	0	5
DFT 201	Drafting	0	6	3
DFT 211	Mechanisms	3	2	4
		11	10	16

Sixth Quarter

PHY 104	Light & Sound	3	2	4
PHY 106	Physics: Statics	5	0	5
ENG 103	Report Writing	3	0	3
MEC 208	Machine Design I	3	3	4
		14	5	16

Seventh Quarter

MEC 209	Machine Design II	3	3	4
MEC 205	Strength of Materials	3	2	4
PSY 206	Applied Psychology	5	0	5
DFT 213	Die Design	2	4	4
		13	9	17

ELECTRONICS ENGINEERING TECHNOLOGY

Purpose of Curriculum

Among the many different fields of engineering technology, electronics engineering technology is the most rapidly expanding, with practically unlimited job opportunities. The electronics technology curriculum at CCTI is designed to give the student a broad-based, current and relevant job oriented state-of-the-art education.

The electronic laboratory is extremely well equipped with modern equipment. The course content and the associated laboratory work are designed to give the student extensive training in testing, measurements and troubleshooting, breadboarding, and prototype building in many important areas of modern electronics, particularly emphasizing the areas of digital and microwave electronics.

The curriculum consists of a general coverage of electrical components, solid-state devices, and fundamentals of circuit theory, followed by the practical application of these concepts as related to the needs of the electronics industry. Courses are sequenced to present the content in an order that will provide the student with progressive levels of job related skills and experiences.

In addition to courses of study in the electronics field, the program in electronics technology also includes material in the related fields such as technical mathematics and physics to produce a graduate with a broad technical base.

Job Description

A graduate of the electronics engineering technology program is qualified to work as an electronic engineering technician. Under the direction of a professional engineer, an electronic engineering technician can analyze and solve technical problems in electronic systems; prepare technical reports on experiments; build, test, and troubleshoot electronic subsystems and other similar projects; install and maintain complex electronic systems or carry out functions such as technical sales or technical writing.

Course length—7 quarters.

Degree awarded—Associate in Applied Science.

	Hrs. Pr. Wk.		Qtr. Hrs.
Course Title	**Cl.**	**Lab.**	**Cr.**
First Quarter			
MAT 101 Technical Mathematics	5	3	6
ELC 112C Electrical Fundamentals I	5	4	7
DFT 101 Drafting	0	6	3
ENG 101 Grammar	3	0	3
	13	13	19
Second Quarter			
MAT 102 Technical Mathematics	5	3	6
ELC 113C Electrical Fundamentals II	3	4	5
ELN 121 Electronics I	3	4	5
DFT 102 Drafting	0	6	3
	11	17	19
Third Quarter			
MAT 103 Technical Mathematics	5	3	6
ELC 114 Electrical Fundamentals III	3	2	4
ELN 122C Electronics II	5	4	7
ENG 102 Composition	3	0	3
	16	9	20
Fourth Quarter			
MAT 201 Technical Mathematics	5	3	6
ELN 123 Electronics III	3	4	5
PHY 101 Properties of Matter	3	2	4
ENG 204 Oral Communications	3	0	3
	14	9	18

Fifth Quarter

ELN 241C	Electronic Systems I	3	4	5
ELN 218	Pulse, Logic and Digital Circuits	3	4	5
PHY 102	Physics: Mechanics	3	2	4
	Social Science Elective	5	0	5
		14	10	19

Sixth Quarter

ELN 219	Digital Fundamentals	3	4	5
*ELN 243C	Electronic Systems III: Communications	5	4	7
PHY 104	Physics: Light and Sound	3	2	4
ENG 103	Report Writing	3	0	3
		14	10	19

Seventh Quarter

*ELN 247C	Electronics Systems II: Computers	5	4	7
ELN 246	Electronics Design Project	0	6	3
	Social Science Elective	5	0	5
		10	10	15

*Note: Additional specialized electives, either related to computers or communications, may be offered.

INDUSTRIAL MAINTENANCE MECHANICS (ELECTROMECHANICAL)

Purpose of Curriculum

This curriculum will provide a training program in the basic knowledge, fundamentals, and industry practices in the maintenance and repair of industrial machinery and electromechanical equipment. With the industrial growth of North Carolina and the variety of machinery and equipment used through the average manufacturing plant, qualified maintenance mechanics who have a basic knowledge of electrical-mechanical systems and their application are in constant demand.

Job Description

The electromechanical mechanic repairs and maintains, in accordance with drawings, diagrams, sketches, operation manuals and manufacturers specifications, machinery and mechanical equipment such as pumps, compressors, boilers, motors, electrical controls, pneumatic and hydraulic devices, and production machines found in industrial plants. He uses hand tools, power tools, machine tools, welding equipment, and precision-measuring and testing instruments.

He must observe mechanical electrical devices in operation and listen to their sounds to locate causes of trouble. Much of a repairman's time is spent in preventative maintenance. He also may keep maintenance records of the equipment he services.

Course length—7 quarters.

Degree awarded—Diploma.

	Hrs. Pr. Wk.			Qtr. Hrs.
Course Title	Cl.	Lab.	Shop	Cr.
First Quarter				
MEC 1101A Machine Tool Theory and Practice	3	0	9	6
MAT 1101 Fundamentals of Mathematics	5	0	0	5
DFT 1104 Blueprint Reading I	3	0	0	3
MEC 1117 Treatment of Metals	2	0	6	4
	13	0	15	18
Second Quarter				
EMS 1101 Industrial Maintenance Shop Practice	2	0	6	4
MAT 1115 Electrical Mathematics	5	0	0	5
PHY 1101 Applied Science	3	2	0	4
DFT 1105 Blueprint Reading: Mechanical	5	0	0	5
ELC 1112A Direct and Alternating Current I	1	0	6	3
	16	2	12	21
Third Quarter				
ELC 1112B Direct and Alternating Current II	3	0	9	6
PHY 1102 Applied Science	3	2	0	4
WLD 1120 Welding: Oxyacetylene	3	0	9	6
	9	2	18	16
Fourth Quarter				
EMS 1102A Fundamentals of Electric Motors	2	0	6	4
EMS 1105 Facility Maintenance	1	0	6	3
PME 1126 Small Engine Repair	2	0	3	3
AHR 1120 Domestic Air Conditioning	2	0	3	3
	7	0	18	13
Fifth Quarter				
EMS 1102 Electromechanical Systems I	3	0	9	6
WLD 1121 Welding ARC	1	0	3	2
ENG 1101 Reading Improvement	5	0	0	5
AHR 1104 Boilers and Heating Systems	2	0	6	4
	11	0	18	17
Sixth Quarter				
EMS 1103 Electromechanical Systems II	3	0	9	6
ENG 1102 Communicative Skills	3	0	0	3
WLD 1121A Welding: ARC	3	0	9	6
	9	0	18	15
Seventh Quarter				
AHR 1121A Commercial Refrigeration Systems	2	0	6	4
MEC 1139 Basic Hydraulics	2	0	6	4
EMS 1110 Electrical Systems Design	2	0	3	3
WLD 1124 Welding: Pipe	2	0	6	4
	8	0	21	15

INDUSTRIAL MANAGEMENT TECHNOLOGY

Purpose of Curriculum

The Industrial Management Technology curriculum is designed to develop the individual's ability to advance in an industrial occupation and to assume the responsibilities that accompany foreman, supervisory and mid-management positions in all types of industry.

The overall objectives of this curriculum are to further develop the individuals' abilities: in communicating with his fellow worker through the spoken and written word; in understanding the mathematical skills required in supervision; in understanding human behavior and motivation; in a working knowledge of the principles of organization and management of an industrial business.

The curriculum is designed so that persons employed full-time may attend school during the evening hours on a part-time basis over a three year period and earn an Associate in Applied Science Degree in Industrial Management Technology.

Job Description

The supervisor or foreman in industry coordinates the activities of workers. His duties may include interpretation of company policies to employees, planning production schedules, estimating man hour requirements for job completion, establishing or adjusting work procedures, analyzing and resolving work problems and motivating workers.

Course length—9 quarters.

Degree awarded—Associate in Applied Science.

	Hrs. Pr. Wk.		Qtr. Hrs.
Course Title	Cl.	Lab.	Cr.
First Quarter			
ENG 101 Grammar	3	0	3
ISC 102 Industrial Safety	4	0	4
MAT 130 Math for Management I	4	0	4
MGT 132A Issues In Management	1	0	1
	12	0	12
Second Quarter			
ENG 102 Composition	3	0	3
MAT 131 Math for Management II	4	0	4
ISC 205 First Aid	2	2	3
MGT 131B Issues In Management	2	0	2
	11	2	12
Third Quarter			
ENG 103 Report Writing	3	0	3
DFT 118 Drafting & Blueprint Interpretation	3	2	4
PSY 126 Science of Human Relations	4	0	4
MGT 131C Issues In Management	1	0	1
	11	2	12
Fourth Quarter			
ENG 204 Oral Communications	3	0	3

BUS 272 Principles of Supervision	4	0	4
MAT 132 Statistics	4	0	4
MGT 131D Issues In Management	1	0	1
	12	0	12

Fifth Quarter

ECO 102A Economics in Business & Industry	4	0	4
ISC 202 Quality Control	2	2	3
PSY 133 Creative Thinking	4	0	4
MGT 131E Issues In Management	1	0	1
	11	2	12

Six Quarter

ECO 201 Labor Economics & Relations	4	0	4
ISC 120 Principles of Industrial Management	4	0	4
ISC 209 Plant Layout	4	0	4
	12	0	12

Seventh Quarter

ISC 218 Plant Security	4	0	4
PSY 125 Art of Motivating People	4	0	4
ISC 219 Fire Brigade Training	3	2	4
	11	2	12

Eighth Quarter

MEC 213 Production Planning	4	0	4
ISC 210 Job Analysis & Evaluation	3	2	4
RECOMMENDED ELECTIVE	3/5	0	3/5
	10/12	2	11/13

Ninth Quarter

ISC 231 Manufacturing Cycles	3	2	4
BUS 233 Personnel Management	4	0	4
RECOMMENDED ELECTIVE	3/5	0	3/5
	10/12	2	11/13

ELECTIVES

Reference: To 8th and 9th Quarters — Industrial Management

A minimum of 108 credit hours are required for graduation. Should one take a 3 or 4 credit hour elective course in the 8th quarter, one must take a 5 credit hour elective course in the 9th quarter to meet the 108 quarter credit hour requirement. One may take a 5 credit hour course the 8th quarter and a 3 or 4 credit hour course in the 9th quarter.

3 credit hour elective courses may be selected from EDP 104 BUS 102, BUS 115.

4 credit hour elective course, BUS 101.

5 credit hour elective courses may be selected from SOC 102, POL 102, POL 103.

LAW ENFORCEMENT

Purpose of Curriculum

Law enforcement techniques have evolved from rather simple jobs, requiring simple qualifications, to more complex activities requiring a large capacity for highly specialized knowledge.

Traditional policies and entrance requirements, coupled with education and training standards have led to a shortage of trained law enforcement technicians and administrators.

Today, as police agencies move toward a professional status, educational institutions are becoming the training centers for tomorrow's policemen. The North Carolina Department of Community Colleges' Law Enforcement Training Program is dedicated to the purpose of developing proficiency in leadership in these people. Its development is based on present and future educational and training needs rather than those of the past.

The program is designed to provide occupational training for the individual who has a definite interest in and adaptability to a law enforcement career. It offers practical, technical and general instruction to meet the requirements of various law enforcement agencies and provides the students with the skills, knowledges, and attitudes necessary for employment at the operational level and development for management roles.

There is an increasing demand for properly trained law enforcement officers in industry, municipal, county, state and federal agencies; and there is every reason to believe that the highly trained law enforcement officer will find challenging opportunities with public and private law enforcement services.

Job Description

Law enforcement is that important division of government which is assigned the power and responsibility to maintain order and enforce law.

Course length—7 quarters.

Degree awarded—Associate in Applied Science.

		Hrs. Pr. Wk.		Qtr. Hrs.
	Course Title	Cl.	Lab.	Cr.
First Quarter				
ENG 101	Grammar	3	0	3
MAT 109	Criminal Justice Mathematics	5	0	5
PSC 101	Introduction to Law Enforcement & Criminal Justice	5	0	5
PSC 102	Basic Police Procedures I	5	0	5
PSY 102	General Psychology	5	0	5
		23	0	23
Second Quarter				
ENG 102	Composition	3	0	3
POL 102	Government: National	5	0	5

PSY 206	Applied Psychology	5	0	5
PSC 115	Criminal Law I	5	0	5
PSC 103	Basic Police Procedures II	5	0	5
		23	0	23

Third Quarter

ENG 204	Oral Communications	3	0	3
POL 103	Government-State and Local	5	0	5
PSC 110	Crime and Delinquency	5	0	5
PSC 116	Criminal Law II	5	0	5
Elective				3
		18	0	21

Fourth Quarter

PSC 118	Motor Vehicle Code	5	0	5
PSC 119	Patrol Procedures	5	0	5
Elective				3
		10	0	13

Fifth Quarter

PSC 201	Traffic Planning and Management	4	3	5
PSC 215	Fingerprinting	3	4	5
CHM 101A	Chemistry	3	2	4
Elective				4
		10	9	18

Sixth Quarter

PSC 205	Criminal Evidence	5	0	5
PSC 210	Criminal Investigation	5	3	6
SOC 102	Principles of Sociology	5	0	5
PSC 220	Police Organization and Administration	5	0	5
		20	3	21

Seventh Quarter

PSC 206	Report Writing and Records	3	3	4
PSC 211	Introduction to Criminalistics	4	3	5
PSC 225	Criminal Procedure	5	0	5
PSY 103	Adolescent Psychology	5	0	5
		17	6	19

RECOMMENDED ELECTIVES

BUS 102	Typing I	3	2	4
CJC 212	Drugs	3	2	4
CJC 220	Constitutional Law	3	0	3

MACHINIST

Purpose of Curriculum

This curriculum was prepared to meet a definite need for training of machinist. Surveys recently completed in North Carolina show that many of the existing industries lack time and facilities for training enough machinists to meet present and planned needs. Expanding industries already located in our state and new industries under development invariably express the need for skilled craftsmen who have the background knowledge and potential to advance.

This guide is designed to give learners the opportunity to acquire basic skills and the related technical information necessary to gain employment and build a profitable career in the machine shop industry in the state. It is comprised of the joint views of committees responsible for its development.

Job Description

The machinist is a skilled metal worker who shapes metal parts by using machine tools and hand tools. His training and experience enable him to plan and carry through all the operations needed in turning out a machined product and to switch readily from one kind of product to another. A machinist is able to select the proper tools and material required for each job and to plan the cutting and finishing operations in their proper order so that he can complete the finished work according to blueprint or written specifications. He makes standard shop computations, relating to dimensions of work, tooling, feeds, and speeds of machining. He often uses precision measuring instruments such as micrometers and gauges to measure the accuracy of his work to thousandths of an inch.

This skilled worker must be able to set up and operate most types of machine tools. The machinist also must know the composition of metals so that he can heat and quench cutting tools and parts to improve machinability. His wide knowledge enables him to turn a block of metal into an intricate, precise part.

Course length—4 quarters.

Degree awarded—Diploma.

Course	Title	Hrs. Pr. Wk. Cl.	Lab.	Shop	Qtr. Hrs. Cr.
First Quarter					
MEC 1101	Machine Tool Theory & Practice I	3	0	12	7
DFT 1104	Blueprint Reading I	3	0	0	3
MAT 1101	Fundamentals of Mathematics	5	0	0	5
ENG 1101	Reading Improvement	5	0	0	5
		16	0	12	20
Second Quarter					
MEC 1102	Machine Tool Theory & Practice II	3	0	12	7
MAT 1123	Machinist Mathematics	5	0	0	5
DFT 1105	Blueprint Reading: Mechanical	5	0	0	5
PHY 1101	Applied Science	3	2	0	4
		16	2	12	21
Third Quarter					
MEC 1103	Machine Tool Theory & Practice III	3	0	12	7
MAT 1103	Geometry	5	0	0	5
DFT 1106	Blueprint Reading	1	0	4	2
PHY 1102	Applied Science	3	2	0	4
		12	2	16	18

Fourth Quarter					
MEC 1152	Tool Making: Gages and Special Tools	2	0	8	4
MEC 1151	Tool Making: Jigs and Fixtures I ...	3	0	9	6
ENG 1102	Communicative Skills	3	0	0	3
		8	0	17	13

MASONRY

(Presently being offered at Harnett Youth Center)

Purpose of Curriculum

Masons are the craftsmen in the building trades that work with artificial stone, brick, concrete masonry units, stone and the like. During the past decade there has been a steady increase in the demand for these craftsmen. As building construction continues to increase the demand for bricklayers, cement masons, and stonemasons will also increase.

This curriculum in masonry is designed to train the individual to enter the trade with the knowledge and basic skills that will enable him to perform effectively. He must have a knowledge of basic mathematics, blueprint reading and masonry technology. He must know the methods used in laying out a masonry job with specific reference to rigid insulation, refractories, and masonry units specified for residential, commercial and industrial construction.

Most employment opportunities for masons may be found with contractors in new building construction. However, a substantial proportion of masons are self-employed or work with contractors doing repair, alteration, or modernization work.

Job Description

Most masons are employed by contractors in the building construction fields to lay brick, and blocks made of tile, concrete, glass, gypsum or terra cotta. Also, he constructs or repairs walls, partitions, arches, sewers, furnaces and other masonry structures.

After gaining experience in the various types of the masonry trade along with leadership training, it is possible for the tradesman to become a foreman, inspector and eventually a contractor.

Course length—2 quarters.

Degree awarded—Certificate.

		Hrs. Pr. Wk.			Qtr. Hrs.
Course	Title	Cl.	Lab.	Shop	Cr.
First Quarter					
MAS 1101	Bricklaying	6	0	21	13
MAT 1101	Fundamentals of Mathematics	7	0	0	7
DFT 1110	Blueprint Reading: Building Trades .	0	6	0	2
		13	6	21	22

Second Quarter					
MAS 1102	Bricklaying	6	0	21	13
DFT 1111	Blueprint Reading and Sketching	0	6	0	2
MAS 1113	Masonry Estimating	4	3	0	5
		10	9	21	20

MOTORCYCLE MECHANICS

Purpose of Curriculum

Few fields of employment have developed as rapidly in the past few years as occupations related to the motorcycle field. Not only has the need for qualified motorcycle mechanics grown, but related fields of sales, parts, management, and ownership opportunities are also increasing daily with the tremendous increase in the number of motorcycles.

Complexity in the technology of the motorcycle increases each year, making it important that the person entering this field receive thorough training. This curriculum provides the basis for the student to learn present concepts and facts about motorcycles while preparing for changes in new techniques for servicing and repairing them.

The motorcycle mechanics curriculum provides a training program for developing the basic knowledge and skills needed to inspect, diagnose, repair, and/or adjust motorcycles. A thorough understanding of the operating principles involved in the modern motorcycle will be presented in class assignments, discussion, demonstration, shop practice, and work related experiences.

Job Description

Motorcycle mechanics maintain and repair motorcycle frames and electrical and mechanical components. Mechanics will inspect, test, diagnose, and repair motorcycles and return them to proper operating condition.

Course length—4 quarters.

Degree awarded—Diploma.

		Hrs. Pr. Wk.			Qtr. Hrs.
Course	Title	Cl.	Lab.	Shop	Cr.
First Quarter					
ENG 1101	Reading Improvement	5	0	0	5
PHY 1101	Applied Science	3	2	0	4
MAT 1101	Mathematics	5	0	0	5
PME 1010	Introduction to Motorcycles	5	0	9	7
		18	2	9	21
Second Quarter					
ENG 1102	Communicative Skills	3	0	0	3
PHY 1102	Applied Science	3	2	0	4
PME 1011	Motorcycle Electrical Systems I	3	0	3	4
PME 1015	Motorcycle Engines	4	0	8	6
		13	2	11	17

Third Quarter

BUS 1103	Small Business Operations	3	0	0	3
PME 1012	Motorcycle Electrical Systems II	3	0	5	5
PME 1013	Motorcycle Fuel Systems	5	0	5	7
PME 1017	Motorcycle Chassis	3	0	3	4
		14	0	13	19

Fourth Quarter

PSY 1101	Human Relations	3	0	0	3
PME 1018	Special Problems, Motorcycles	0	0	12	4
PME 1019	Troubleshooting, Motorcycles	0	0	9	3
PME 1020	Dynamometer Tuning	2	0	4	3
		5	0	25	13

NURSES ASSISTANT

The Nurses Assistant Program is 1 quarter (11 weeks) in length and is offered as frequently as a sufficient number of students are available.

Duties required of Nurses Assistants will vary from one hospital to another; however, the subjects taught in this curriculum are common to all hospitals, child care nurseries, nursing homes, and home nursing. The student must satisfactorily complete 385 hours of instruction consisting of classroom, laboratory, and clinical experiences. During the first three weeks most of the time is spent in the classroom; while the remaining eight weeks of the quarter are divided between classroom study and ward performance. As the student progresses more and more time is spent in the clinical area in the care of patients. Thus at the end of eleven weeks, the student is ready for employment in hospitals, rest homes, and in private patient care positions. Once the graduate is employed, the employing institution should assume responsibility for follow-up supervision and for an ongoing program of in-service education appropriate to the nurses assistant level.

As stated above, this is a one-quarter course and students may be admitted at the beginning of any quarter. Persons interested in enrolling in the Nurses Assistant program should apply for admission as soon as possible as enrollment in any quarter is limited. Applicants need not be high school graduates; however, it is highly desirable.

Course length—1 quarter.

Degree awarded—Certificate.

OUTLINE OF UNITS

UNIT I: INTRODUCTION TO ROLE OF THE NURSES ASSISTANT
Lesson 1: Trends in Nursing
Lesson 2: Modern Health Facilities
Lesson 3: Modern Nursing
Lesson 4: The Nurses' Assistant Today

UNIT II: UNDERSTANDING EFFECTS OF ILLNESS
Lesson 1: Common Effects of Illness
Lesson 2: Common Reactions to Hospitalization
Lesson 3: Aiding Adjustment to Illness and/or Hospitalization

UNIT III: MAKING OBSERVATIONS ON PATIENTS
Lesson 1: How to Make Reliable Observations
Lesson 2: How to Observe Respiratory and Circulatory Function
Lesson 3: How to Measure Body Temperature
Lesson 4: How to Observe Body Specimens
Lesson 5: General Observations to Be Reported

UNIT IV: SAFETY MEASURES IN CARE OF THE SICK
Lesson 1: Medical Asepsis
Lesson 2: Fundamentals of Safety in Patient Care
Lesson 3: Internal Disaster
Lesson 4: External Disaster

UNIT V: MEASURES TO PROMOTE THE PATIENT'S COMFORT
Lesson 1: Care of the Patient's Unit
Lesson 2: Assisting the Patient with Personal Hygiene
Lesson 3: Maintaining the Patient's Body Function
Lesson 4: Diversional Activities

UNIT VI: MEASURES RELATED TO THE PATIENT'S ILLNESS
Lesson 1: Care of the Patient in Isolation
Lesson 2: Irrigations
Lesson 3: Heat and Cold
Lesson 4: Procedures Related to the Surgical Patient

UNIT VII: BECOMING A HOSPITAL EMPLOYEE
Lesson 1: Being a Responsible Wage-Earner
Lesson 2: Applying for and Resigning from a Position
Lesson 3: Maintaining High Standards

PARALEGAL TECHNOLOGY

Purpose of Curriculum

The legal profession is a very involved one and a profession that requires specialists and general practitioners. A legal specialist may be a lawyer specializing in one facet of law or a paralegal assisting a lawyer or group of lawyers.

This curriculum is designed to train individuals to work by the side of a lawyer, to relieve the lawyer of routine matters, and to assist him in the conduct of more complicated and difficult tasks.

The paralegal, while having basic secretarial skills, is more than a secretary and is capable of doing independent legal work under the general supervision of a lawyer.

The "legal" portion of the paralegal curriculum will consist of courses designed to permit the paralegal to provide support to practicing lawyers in the law office setting. Study of "law" in these courses will be limited to specific background knowledge requisite to prepare the paralegal for essentially administrative and ministerial processing of cases and activities in the law office. Emphasis will be placed on the techniques and requirements for processing documents and data.

Job Description

The graduate of the Paralegal Curriculum will be able to directly assist the lawyer in most facets of law, but must always work under the supervision of the lawyer. In no case will the paralegal give legal advice, enter into courtroom procedure, or be involved in litigation except as an assistant to the lawyer. The paralegal will be able to assist and supervise legal secretaries not only as to general pleading and practice and legal business forms and procedures, but also in general office management and routine.

Course length—7 quarters.

Degree awarded—Associate in Applied Science.

	Hrs. Pr. Wk.		Qtr. Hrs.
Course Title	**Cl.**	**Lab.**	**Cr.**
First Quarter			
ENG 101A Grammar	3	0	3
PSY 206 Applied Psychology	5	0	5
MAT 110 Business Mathematics	5	0	5
BUS 102 Typing (or elective)	2	3	3
LEX 115 Commercial Law I	5	0	5
	20	3	21
Second Quarter			
LEX 215 Paraprofessional in the legal profession	3	3	4
LEX 116 Commercial Law II	5	0	5
BUS 120 Accounting I	5	5	7
ENG 101B Grammar	3	0	3
	16	8	19
Third Quarter			
ENG 102 Composition	3	0	3
LEX 103 Techniques of Investigation I	3	3	4
LEX 117 Advanced Commercial Law	5	0	5
LEX 132 Law Library Research and Management	6	3	7
	17	6	19
Fourth Quarter			
LEX 201 N.C. Legal Systems I	5	0	5
LEX 118 Bankruptcy and Collection Procedures	2	1	2
BUS 229 Tax Accounting I	3	4	5
ENG 206 Business Communications	3	0	3
LEX 223 Investigation of Criminal Cases	2	3	3
	15	8	18
Fifth Quarter			
LEX 202 N.C. Legal Systems II	3	0	3
LEX 204 Law Office Management	2	3	3
LEX 222 Tax Accounting II	2	3	3
LEX 208 Probate Management I	3	0	3
ENG 204 Oral Communication	3	0	3
	13	6	15
Sixth Quarter			
LEX 209 Probate Management II	3	0	3
LEX 104 Techniques of Investigation II	3	3	4

LEX 235	Law and the Family	3	0	3
LEX 225	Real Property I	4	3	5
		13	6	15

Seventh Quarter

LEX 210	Probate Management III	3	0	3
LEX 224	Investigation of Civil Claims	5	3	6
LEX 226	Real Property II	6	0	6
LEX 227	Investigation of Industrial Claims	2	3	3
		14	10	18

Electives:

CAT 116	Photography	2	3	3
CIV 101	Surveying	1	3	2
LEX 233	Anatomy and Medical Terminology	5	0	5

PRACTICAL NURSE EDUCATION

A ONE-YEAR POST HIGH SCHOOL VOCATIONAL CURRICULUM. GRADUATES ELIGIBLE FOR STATE BOARD EXAMINATION AND LICENSE.

Course Description

The Practical Nurse Education course is planned to meet the needs of hospitals, nursing homes and other medical agencies in North Carolina and other states. It is sponsored by the Department of Community Colleges State Board of Education Vocational Technician Division. The course outline has been studied and approved by representatives of a number of the major medical agencies.

Practical nurse training includes classroom study of basic nursing skills and related subjects, such as body structure and functions, conditions of illness, nutrition, and types of medicine and medications, as well as supervised clinical practice in applying this training to actual situations.

General Qualifications

Among the personal qualities essential for practical nurses are the desire to help sick people and an aptitude for the work. Also important are tact, patience, understanding, emotional stability, dependability and good physical health.

The successful practical nurse in addition to the personal qualities stated, must be capable of learning the basic nursing skills and related subjects. This requires an understanding or aptitude for communication, biological sciences and psychology. Those who feel they are able to meet these requirements and think they have the necessary personal qualities to do well in this field should give special consideration to training for this type of employment.

Employment

Licensed practical nurses assist in the care and treatment of the physically and mentally ill, under the direction of physicians or professional nurses. As members of a nursing team, they perform many of the less complex tasks, thus freeing professional nurses for more skilled and specialized duties. They may also assist physicians or professional nurses with complicated diagnostic procedures or treatments.

Practical nurses usually give prescribed treatments and medications, take patients' temperature, pulse, and blood pressure readings, and help with bathing and other personal hygiene tasks. They may also provide nursing care for newborn babies and their mothers, the handicapped, the chronically ill, or the convalescent. In doctors offices, practical nurses assist physicians or professional nurses in the examination of patients, give simple medications or treatments as directed, make routine laboratory tests, and perform some clerical tasks.

Licensed practical nurses are expected to have excellent employment opportunities. The supply of licensed workers has not kept pace with the demand generated by the establishment of new positions vacated by practical nurses who retire, die or leave the nursing field for other reasons. Many part-time positions will continue to be available, thus enabling women who have families or other responsibilities to continue to work as practical nurses.

Course length—4 quarters.

Degree awarded—Diploma.

Course	Title	Hrs. Pr. Wk.			Qtr. Hrs.
		Cl.	Lab.	Clinical	Cr.
PNE 1101	Fundamentals of Practical Nursing	6	4	1	8
PNE 1102	Nutrition (Basic)	2	0	0	2
PNE 1103	Anatomy & Physiology	8	0	0	8
PNE 1104	Growth and Development	2	0	0	2
ENG 1101A	Communication	2	0	0	2
PSY 1101A	Human Relations	2	0	0	2
		22	4	1	24

Second Quarter

Course	Title	Cl.	Lab.	Clinical	Cr.
PNE 1105	Introduction: Medical-Surgical I	6	0	0	6
PNE 1112	Maternity Nursing	4	0	0	4
PNE 1110	Pediatrics I	2	0	0	2
PNE 1113	Clinical Experiences I	0	0	24	8
		12	0	24	20

Third Quarter

Course	Title	Cl.	Lab.	Clinical	Cr.
PNE 1106	Medical-Surgical II	5	0	0	5
PNE 1111	Pediatrics II	2	0	0	2
PNE 1108	Pharmacology I	3	2	0	4

PNE 1114	Clinical Experience II	0	0	24	8
		10	2	24	19
Fourth Quarter					
PNE 1107	Medical Surgical III	6	0	0	6
PNE 1109	Pharmacology II	2	0	0	2
PNE 1116	Disaster Nursing	2	0	0	2
PSY 1101B	Legal Aspects in Nursing (Human Relations)	2	0	0	2
PNE 1115	Clinical Experience III	0	0	24	8
		12	0	24	20

RADIO-TELEVISION BROADCASTING

Purpose of Curriculum

The purpose of this curriculum is to provide a general outline of a course of study to prepare men and women to enter the broadcast industry, properly trained, to assume normal duties in a broadcasting station. Students will be given training to enable them to qualify for the Federal Communications Commissions' third class operator's license.

The curriculum is designed to offer the student sufficient training so that he can perform efficiently as an announcer, salesman, or newsgatherer-writer.

Job Description

The broadcast industry is currently faced with a shortage of personnel especially persons with the necessary skills to perform in the areas of announcing, sales, writing, and production.

The graduate will be prepared to: work as an announcer, interview guests, gather and prepare news for presentation and present same, sell time for advertising and write commercials and produce them, operate station control boards and equipment, and keep logs.

Course length—4 quarters.

Degree awarded—Diploma.

		Hrs. Pr. Wk.		Qtr. Hrs.
	Course Title	Cl.	Lab.	Cr.
First Quarter				
ENG 101	Grammar	3	0	3
PSY 206	Applied Psychology	5	0	5
BUS 102	Typewriting	2	3	3
SPH 100	Voice and Diction I	3	2	4
RTV 101	Introduction to Broadcasting	5	2	6
		18	7	21
Second Quarter				
ENG 102	Grammar and Composition	3	0	3
RTV 103	Broadcast Announcing & Performance I	3	4	5

RTV 106	Programming	3	2	4
RTV 102	Newsgathering-Writing-Sports	3	4	5
RTV 109	FCC Rules and Regulations	2	0	2
SPH 101	Voice & Diction II	5	0	5
		19	10	24

Third Quarter

ENG 204	Oral Communications	3	0	3
RTV 104	Broadcast Announcing & Performance II	3	4	5
RTV 115	Radio Production Techniques	3	2	4
RTV 107	Broadcast Sales and Promotion	3	2	4
RTV 114	Commercial Writing and Production	3	2	4
SPH 102	Voice & Diction III	5	0	5
		20	10	25

Fourth Quarter

ENG 103	Report Writing	3	0	3
RTV 105	Broadcast Announcing & Performance III	3	4	5
RTV 199	Broadcasting Practicum	0	12	4
RTV 110	Broadcast Operations—Traffic	3	4	5
		9	20	17

RADIO-T.V. REPAIR
ELECTRONIC SERVICING

Purpose of Curriculum

Within recent years improved electronic techniques have provided expanded entertainment and educational facilities in the form of monochrome and color television, frequency modulated radio, high fidelity amplifiers, and stereophonic sound equipment. These developments require expanded knowledge and skill of the individual who would qualify as a competent and up-to-date serviceman.

This curriculum guide suggests a training program which will provide the basic knowledge and skills involved in the installation, maintenance, and servicing of radio, television, and sound amplifier system. A large portion of the laboratory time is spent in verifying electronic principles and developing servicing techniques.

Job Description

A radio and television serviceman may be required to install, maintain, and service amplitude modulated and frequency modulated home and auto radios, transistorized radios, monochrome and color television sets, intercommunication, public address and paging systems, high fidelity and stereophonic amplifiers, record players and tape recorders.

His work will require meeting the public both in the repair shop and on service calls. A serviceman who establishes his own business will also need to know how to maintain business records and inventory.

Course length—4 quarters.

Degree awarded—Diploma.

		Hrs. Pr. Wk.			Qtr. Hrs. Cr.
Course Title		Cl.	Lab.	Shop	
First Quarter					
MAT 1115	Electrical Math	5	0	0	5
ENG 1101	Reading Improvement	5	0	0	5
ELC 1112	Direct and Alternating Current	5	0	11	9
		15	0	11	19
Second Quarter					
MAT 1116	Electrical Mathematics	5	0	0	5
ENG 1102	Communication Skills	3	0	0	3
ELN 1112	Vacuum Tubes and Solid State Devices	6	0	10	10
		14	0	10	18
Third Quarter					
ELN 1125	Radio Receiver and Amplifier Servicing	4	0	12	8
ELN 1113	Television Theory and Circuits	5	0	6	7
PSY 1101	Human Relations	3	0	0	3
		12	0	18	18
Fourth Quarter					
ELN 1127	Television Receiver Circuits and Servicing	9	0	18	15
BUS 1103	Small Business Operations	3	0	0	3
		12	0	18	18

REAL ESTATE

Real estate is a major business activity in North Carolina. The real estate industry is much broader and more complex than is commonly realized. Real estate not only consists of interest in houses and land which encompasses providing services for people in finding satisfactory homes and for business and industry in finding profitable locations, but also includes creative planning and enterprising in the development of the highest and best use of land and buildings. Other aspects of the industry include finding capital for construction or rehabilitation and the appraising and management of real property.

To meet the growing housing demands of the population and expansion and construction demands of business and industry, trained men and women are needed to assist in locating families, locating factories and offices, financing the vast changes taking place today, managing commercial and apartment buildings and appraising real property. The man or woman entering the real estate business will be involved in an industry embracing a wide variety of fundamental services. The real estate industry offers an opportunity for personal achievement as well as the knowledge of doing work of the highest importance in the community.

This curriculum is scheduled so that persons employed full-time may attend school during the evening hours on a part-time basis.

Purpose of Curriculum

The purposes of the real estate curriculum are threefold:

1. To prepare the individual to enter the real estate industry.
2. To provide an educational program for persons directly involved in various phases of the real estate industry.
3. To provide an opportunity for individuals desiring to fulfill professional or general interest needs.

These purposes will be fulfilled through a thorough introduction to real estate principles, practices, industry ethics, finance, law, appraisal techniques, and trends. In essence, the primary objective will be to prepare the individual to enter the real estate industry.

Job Description

The two-year program will provide opportunity for an individual's entry into an array of real estate jobs. Entry-level public or private employment opportunities are available in such areas as: sales, finance, development, market analysis, valuation and property management. Advanced management, appraising or consulting.

The real estate curriculum provides an indepth study of various aspects of the real estate industry. Real estate courses will provide study in such areas as urban and suburban problems, regional development, real estate brokerage, real estate markets, investment, valuation analysis and the management of capital formation. Business and related courses will focus on work in accounting, marketing, communications, insurance, management, economics, production and finance.

Course length—6 quarters.

Degree Awarded—Associate in Applied Science.

Course Title	Hrs. Pr. Wk. Cl.	Lab.	Qtr. Hrs. Cr.
First Quarter			
ENG 101 Grammar	3	0	3
BUS 162 Fundamentals of Real Estate I	3	0	3
BUS 101 Introduction to Business	3	2	4
ECO 102 Economics I	3	0	3
BUS 109 Business Mathematics	5	0	5
	17	2	18
Second Quarter			
ENG 102 Composition	3	0	3
BUS 163 Fundamentals of Real Estate II	3	0	3
ECO 104 Economics II	3	0	3
BUS 247 Business Insurance	4	0	4
BUS 120 Accounting I	5	5	7
	18	5	20
Third Quarter			
ENG 204 Oral Communications	3	0	3
BUS 164 Real Estate Law	3	0	3
CIV 105 Architectural Materials & Methods I	3	3	4

BUS 121	Accounting II	5	5	7
		14	8	17

Fourth Quarter

ENG 206	Business Communications	3	0	3
BUS 239	Introduction to Marketing	5	0	5
BUS 209	Real Estate Finance	5	0	5
BUS 216	Real Estate Sales	3	0	3
BUS 292	Appraisal I	3	0	3
		19	0	19

Fifth Quarter

PSY 206	Applied Psychology	5	0	5
BUS 296	Property Management	3	0	3
BUS 293	Appraisal II	2	3	4
BUS 221	Real Estate Investment & Taxation	3	0	3
BUS 226	Land Development	3	2	4
		16	5	19

Sixth Quarter

SOC 102	Principles of Sociology	5	0	5
BUS 294	Appraisal III	2	3	4
BUS 235	Principles of Management	3	2	4
BUS 231	Real Estate Merchandising	3	0	3
BUS 228	Land Use Policy & Governmental Influences on Real Estate	3	0	3
		16	5	19

RECREATION TECHNOLOGY

Purpose of Curriculum

The field of recreation has developed rapidly during the past decade. Today we are seeing resort areas being built along the coast lines and in the mountains of our state. Businesses are experimenting with the four day work week, thus allowing more leisure time for man to manage.

The curriculum is primarily designed to train young men and women to plan and supervise recreational activities for all age groups and in a variety of settings. Graduates of this curriculum will be taught face-to-face leadership responsibility and would be qualified to oversee facilities such as community centers, playgrounds, campsites and resort facilities. Emphasis will be placed on planning, organizing, and supervising activities.

The graduate of the Recreation Technology curriculum may enter a variety of career opportunities. Employment opportunities would exist in: community recreation programs (as playground supervisors, activity specialist, center supervisor, etc.); industry; summer camps; parks; churches; and public and private resorts.

Course length—7 quarters.

Degree awarded—Associate in Applied Science.

	Hrs. Pr. Wk.		Qtr. Hrs.
Course Title	Cl.	Lab.	Cr.
First Quarter			
ENG 101 Grammar	3	0	3
BUS 109 Business Math	5	0	5
REC 111 Introduction to Recreation	5	0	5
REC 118 Games of Low Organization	2	3	3
REC 220 Camp Counseling	2	4	4
	17	7	20
Second Quarter			
ENG 102 Composition	3	0	3
PSY 102 General Psychology	5	0	5
REC 112 Arts & Crafts I	0	4	2
REC 122 Health & First Aid	2	3	3
REC 201 Group Leadership	3	0	3
REC 223 Recreation & Special Populations	3	0	3
	16	7	19
Third Quarter			
ENG 103 Report Writing	3	0	3
REC 110 Introduction to Natural Resources	2	2	3
REC 119 Team Sports	2	2	3
REC 121 Program Planning & Organization	2	4	4
REC 231 Social Recreation	3	2	4
REC 290 Recreation Practicum	1	6	3
	13	16	20
Fourth Quarter			
REC 299 Recreation Internship	0	40	4
Fifth Quarter			
SOC 102 Principles of Sociology	5	0	5
REC 120 Cultural Arts	2	2	3
REC 207 Sports Officiating	2	2	3
REC 221 Individual Life-Time Rec. Activities	2	4	4
Elective	3	0	3
	14	8	18
Sixth Quarter			
PSY 206 Applied Psychology	5	0	5
REC 109 Facility Management	3	0	3
REC 225 Scheduling Activities & Tournaments	1	2	2
REC 241 Audio Visual Aids	2	2	3
BUS 266C Budgets and Records	5	0	5
Elective	3	0	3
	19	4	21
Seventh Quarter			
ENG 204 Oral Communication	3	0	3
POL 103 Government State & Local	5	0	5
REC 210 Recreation Grounds & Facility Maintenance	2	2	3
REC 211 Water Related Sports	2	3	3
Elective	3	0	3
	15	5	17

SECRETARIAL SCIENCE
EXECUTIVE—LEGAL—MEDICAL

Purpose of Curriculum

The Secretarial Science curriculum has been designed to meet the demand for better qualified secretaries. Courses offered provide for the acquisition of skills in typewriting, shorthand, transcription, and business machine operation. Emphasis is placed on the integration of skills in the performance of office-related activities and the development of personal competencies and qualities desirable for employment.

The curriculum has three options (legal, executive, and medical) designed to produce individuals who will be familiar with the terminology used and procedures followed in specific types of offices.

Job Description

A graduate of the Secretarial Science program may qualify for employment in such positions as: file clerk, stenographer, typist, payroll clerk, receptionist, and other secretarial positions in a variety of office settings.

Course Title	Hrs. Pr. Wk. Cl.	Hrs. Pr. Wk. Lab.	Qtr. Hrs. Cr.
First Quarter			
ENG 101A Grammar	3	0	3
BUS 102 Typewriting (or elective)	2	3	3
BUS 101 Introduction to Business	3	2	4
BUS 109 Business Mathematics	5	0	5
BUS 106 Shorthand (or elective)	6	4	8
	19	9	23
Second Quarter			
ENG 101B Grammar	3	0	3
BUS 103 Typewriting	2	3	3
BUS 107 Shorthand	3	2	4
BUS 120 Accounting I	5	5	7
BUS 115 Business Law	3	0	3
	16	10	20
Third Quarter			
ENG 102 Composition	3	0	3
BUS 104 Typewriting	2	3	3
BUS 108 Shorthand	3	2	4
BUS 110 Business Machines	2	3	3
(Electives, 6 Cr. Hrs.)	6	0	6
	16	8	19
Fourth Quarter			
ENG 204 Oral Communications	3	0	3
BUS 206 Dictation and Transcription	3	2	4
BUS 205 Advanced Typewriting	2	3	3
BUS 211 Office Machines	2	3	3
BUS 134 Personal Development	3	0	3
	13	8	16

Fifth Quarter

ENG 206	Business Communications	3	0	3
BUS 207	Dictation and Transcription	3	2	4
BUS 214	Secretarial Procedures	3	2	4
BUS 183	Terminology & Vocabulary Dictation (Medical)	3	2	4
PSY 206	Applied Psychology	5	0	5
		17	6	20

Sixth Quarter

BUS 208	Dictation and Transcription	3	2	4
ENG 103	Report Writing	3	0	3
BUS 112	Filing	3	0	3
BUS 184	Terminology & Vocabulary Dictation (Legal/Industrial)	3	2	4
BUS 117	Machine Transcription	2	2	3
	(Executive-Legal-Medical) (Electives, 3 Cr. Hrs.)	3	0	3
		17	6	20

RECOMMENDED ELECTIVES*

BUS 263	Payroll Taxes	3	0	3
BUS 271	Office Management	3	0	3
BUS 116	Business Law II	3	0	3
BUS 121	Accounting II	5	5	7
EDP 104	Introduction to Data Processing	2	2	3
EDP 110	Keypunching	2	2	3
ECO 102	Economics	3	0	3

*The Secretarial Science student may select elective credits from the list of recommended electives or from other business-related courses approved by the student's advisor.

TOOL MAKER

Purpose of Curriculum

This curriculum was prepared to meet a need for training of tool makers. Surveys recently completed in North Carolina show that many of the existing industries lack time and facilities for training enough tool makers to meet present and planned needs. Expanding industries already located in our state and new industries under development invariably express the need for skilled craftsmen who have the background knowledge and potential to advance.

This guide is designed to give learners the opportunity to acquire basic skills and the related technical information necessary to gain employment and build a profitable career in the tool making trade in the state.

Job Description

Tool makers are highly skilled, creative workers, whose products—tools and special guiding and holding devices—are the basis of mass production in metalworking industries. Tool makers specialize in producing jigs and fixtures (devices required to hold metal while it is being shaved, stamped, or drilled). They also make gauges and other measuring devices that are used in manufacturing precision metal parts.

In comparison with most other machining workers, tool makers have a broader knowledge of machinery operations, shop practices, mathematics, and blueprint reading, and can work to closer tolerances and do more precise handwork. They use almost every type of machine tool and precision-measuring instrument. They work with all metals and alloys commonly used in manufacturing.

Since this work is highly skilled, persons planning to enter the trade should have a good working knowledge of mathematics and physics, as well as considerable mechanical ability, finger dexterity, and a liking for painstaking work. Because tool makers do precision work, the areas in plants and shops where they work are clean and well-lighted.

Course length—6 quarters.

Degree awarded—Diploma.

Course Title	Hrs. Pr. Wk. Cl.	Lab.	Shop	Qtr. Hrs. Cr.
First Quarter				
MEC 1101 Machine Tool Theory & Practice I	3	0	12	7
DFT 1104 Blueprint Reading I	3	0	0	3
MAT 1101 Fundamentals of Mathematics	5	0	0	5
ENG 1101 Reading Improvement	5	0	0	5
	16	0	12	20
Second Quarter				
MEC 1102 Machine Tool Theory & Practice II	3	0	12	7
MAT 1123 Machinist Mathematics	5	0	0	5
DFT 1105 Blueprint Reading: Mechanical	5	0	0	5
PHY 1101 Applied Science	3	2	0	4
	16	2	12	21
Third Quarter				
MEC 1103 Machine Tool Theory & Practice III	3	0	12	7
MAT 1103 Geometry	5	0	0	5
DFT 1106 Blueprint Reading	1	0	4	2
PHY 1102 Applied Science	3	2	0	4
	12	2	16	18
Fourth Quarter				
MEC 1152 Tool Making: Gages and Special Tools	2	0	8	4
MEC 1151 Tool Making: Jigs and Fixtures I	3	0	9	6
ENG 1102 Communicative Skills	3	0	0	3
	8	0	17	13
Fifth Quarter				
MEC 1151A Tool Making: Jigs and Fixtures II	2	0	9	5
MEC 1161 Numerical Control	1	0	4	2
MEC 1154 Die Making I	2	0	9	5
	5	0	22	12

Sixth Quarter				
MEC 1155 Die Making II	2	0	12	6
MEC 1158 Introduction to Plastic Molding	2	0	8	4
WLD 1101A Basic Gas Welding	2	0	6	4
	6	0	26	14

TOOL AND DIE

Purpose of Curriculum

The Tool and Die curriculum at Central Carolina Tech is designed to provide an opportunity to gain further training in the Toolmaking curriculum. Emphasis is placed on the more complex dies and plastic molds used in industry. Expanding industries already located in our state and new industries under development invariably express the need for skilled craftsmen who have the background knowledge and potential to advance. The learner is given the opportunity to acquire basic skills and the related technical information necessary to gain employment and build a profitable career in the Tool and Die trade. Wages are high; for the person willing to work, the rewards of learning the Tool and Die trade are unlimited.

Job Description

Tool and Diemakers make metal forms or patterns called dies which are used in punch presses to stamp out forms in metal. These dies are the basis of mass production in the metalworking industries. Tool and diemakers also specialize in producing plastic molds, jigs and fixtures which are other tools that are used in mass production.

In comparison with most other machining workers, tool and diemakers have a broader knowledge of machinery operation, shop practices, mathematics, and blueprint reading. He has the ability to work to very close tolerances and do highly precisioned handwork. They work with all metals and alloys commonly used in manufacturing.

Since this work is highly skilled, persons planning to enter the trade should have a good working knowledge of mathematics and physics, as well as considerable mechanical ability, finger dexterity, and a liking for painstaking work. Because tool and diemakers do precision work, the areas in plants and shops where they work are clean and well-lighted.

Course length—8 quarters.

Degree awarded—Diploma.

	Hrs. Pr. Wk.			Qtr. Hrs.
Course Title	Cl.	Lab.	Shop	Cr.
First Quarter				
MEC 1101 Machine Tool Theory and Practice I	3	0	12	7
DFT 1104 Blueprint Reading I	3	0	0	3
MAT 1101 Fundamentals of Mathematics	5	0	0	5
ENG 1101 Reading Improvement	5	0	0	5
	16	0	12	20

Second Quarter

MEC 1102	Machine Tool Theory and Practice II	3	0	12	7
MAT 1123	Machinist Mathematics	5	0	0	5
DFT 1105	Blueprint Reading: Mechanical	5	0	0	5
PHY 1101	Applied Science	3	2	0	4
		16	2	12	21

Third Quarter

MEC 1103	Machine Tool Theory and Practice III	3	0	12	7
MAT 1103	Geometry	5	0	0	5
DFT 1106	Blueprint Reading	1	0	4	2
PHY 1102	Applied Science	3	2	0	4
		12	2	16	18

Fourth Quarter

MEC 1104	Machine Tool Theory and Practice IV	2	0	6	4
ELC 1112A	Direct and Alternating Current	1	0	6	3
WLD 1120	Welding: Oxyacetylene	3	0	9	6
		6	0	22	13

Fifth Quarter

MEC 1152	Tool Making: Gages and Special Tools	2	0	8	4
MEC 1151	Tool Making: Jigs and Fixtures I	3	0	9	6
ENG 1102	Communicative Skills	3	0	0	3
		8	0	17	13

Sixth Quarter

MEC 1151A	Tool Making: Jigs and Fixtures II	2	0	9	5
MEC 1161	Numberical Control	1	0	4	2
MEC 1154	Die Making I	2	0	9	5
		5	0	22	12

Seventh Quarter

MEC 1155	Die Making II	2	0	12	6
MEC 1158	Introduction to Plastic Molding	2	0	8	4
WLD 1101A	Basic Gas Welding	2	0	6	4
		6	0	26	14

Eighth Quarter

MEC 1156	Die Making III	3	0	9	6
MEC 1159	Plastic Mold Construction	3	0	9	6
		6	0	18	12

TELEPHONE TECHNICIAN

Purpose of Curriculum

With the growth in population and the economic improvements of the state and nation, the demand for telephone service increases year by year. This demand plus the technological improvements in telephony create a shortage of skilled telephone personnel. Due to the rapid growth of the industry, the demand for these technicians has exceeded the supply.

This curriculum is designed to help reduce this demand by providing a fundamental background of knowledge and skill which can readily be utilized by the telephone industry. In addition, the student will be introduced to a skill which can provide him with a great deal of satisfactory and enjoyment by maintaining equipment that has become a necessity in today's businesses and residences. The training provided by this curriculum will by no means be all that will be required in telephony; but it will open many doors to additional specialized training which will further broaden his skills and abilities.

Job Description

Upon completion of this program of study, the telephone technician may find employment with a telephone company in almost any area of this state or nation. Opportunities are available as a linesman, cable splicer's helper, installer-repairman, and frameman. In addition, there are many companies not directly related to telephone service which are also seeking skilled technicians to work as installers of telephone plant and equipment.

Course length—4 quarters.

Degree awarded—Diploma.

	Hrs. Pr. Wk.		Qtr. Hrs.
Course Title	Cl.	Lab.	Cr.
First Quarter			
MAT 101 Technical Mathematics	5	3	6
ELC 112C Electrical Fundamentals I	5	4	7
DFT 101 Drafting	0	6	3
ENG 101 Grammar	3	0	3
	13	13	19
Second Quarter			
MAT 102 Technical Mathematics	5	3	6
ELC 113C Electrical Fundamentals II	3	4	5
ELN 121 Electronics I	3	4	5
DFT 102 Drafting	0	6	3
	11	17	19
Third Quarter			
MAT 103 Technical Mathematics	5	3	6
ELC 114 Electrical Fundamentals III	3	2	4
ELN 122C Electronics II	5	4	7
ENG 102 Composition	3	0	3
	16	9	20
Fourth Quarter			
TEL 100 Introduction to Telephony	3	0	3
TEL 121 Station Installation and Maintenance	5	3	6
TEL 124 Key System Installation and Maintenance	2	6	4
TEL 169 PABX Installation and Maintenance	5	6	7
TEL 103 Central Office Fundamentals	5	6	7
	20	21	27

TELEPHONY

Introduction

The North Carolina School of Telephony was founded jointly by the N. C. Independent Telephone Association, the North Carolina Depart-. ment of Community Colleges, and Central Carolina Technical Institute to provide training for employees of telephone companies. This training is especially tailored for the telephone technician to increase and improve his technical knowledge and understanding of telephony. Initial training will be offered in those areas where there is little or no training available.

Each course will be short and will be generally independent of other courses. In some instances a working knowledge or experience will be required in order that the student may gain maximum benefit from the material covered.

The telephone industry in North Carolina is a rapidly growing industry and is becoming more technical and complex every day. Presently employed personnel must constantly upgrade and update themselves. This curriculum will provide the opportunity for pre-employment training after minor revision in the near future.

Purpose of Curriculum

It is the purpose of this curriculum to provide a course of study on a time available basis for employees of telephone companies to receive upgrading and updating training in all areas of Telephony. Eventually pre-employment training in Telephony will be available. This training is especially tailored for the telephone technician to increase and improve his technical knowledge and understanding of Telephony.

Job Description

A graduate of this curriculum will be prepared to work in outside plant operations on Central Office Equipment and in toll operations.

Admission

Class enrollment for each course is limited to insure that each trainee receives maximum instruction. Enrollment must be completed at least two weeks prior to the class schedule. Those courses not filled by this time will be cancelled.

Finances

A tuition fee of $2.75 per credit hour for North Carolina students and $13.50 per credit hour for out-of-state students, plus books, will be charged.

Before one can be awarded a diploma in Telephony, one must have completed at least 60 quarter credit hours of work. To qualify for a diploma a person is required to successfully complete the four courses listed below as *required courses;* then select the remaining 26 credit hours from the courses listed below as *elective option courses.* Additional courses will be added as time, personnel, and facilities permit.

Course Title		Hrs. Pr. Wk.		Qtr. Hrs.
		Cl.	Lab.	Cr.
Required Courses				
TEL 101	Basic Electricity	5	3	6
TEL 102	Basic Electronics	9	12	13
TEL 103	Central Office Fundamentals	5	6	7
TEL 155	Transmission Fundamentals	4	0	4
		24	21	34
Elective Options				
TEL 104	Subscriber Carrier	3	3	4
TEL 112	Basic Construction	4	0	4
TEL 113	Cable Splicing	5	6	7
TEL 114	Cable Maintenance	5	6	7
TEL 115	Air Dryer Maintenance & Cable Pressurization	1	3	2
TEL 116	Construction Fundamentals	3	3	4
TEL 120	Semi-Postpay Paystation	2	2	3
TEL 121	Station Installation & Maintenance	5	3	6
TEL 122	Prepay Paystation	2	2	3
TEL 124	Key Systems	2	6	4
TEL 132	Strowger Switch Maintenance	2	6	5
TEL 141	XY Maintenance	2	6	5
TEL 142	XY Circuits and Adjustments	6	9	9
TEL 151	Carrier Fundamentals	5	3	6
TEL 152	Microwave Fundamentals	4	0	4
TEL 153	Data Transmission Fundamentals	5	6	8
TEL 154	Second Class License Preparation	6	9	9
TEL 161	Art of Motivating People	4	0	4

VETERINARY MEDICAL TECHNOLOGY

Purpose of the Curriculum

The purpose of the Veterinary Medical Technology curriculum is to provide training for young men and women who desire to become veterinary medical technologists. Ultimately, it will provide the sorely needed technical assistance to the veterinarian and assist in the upgrading of the profession. Students graduating in this curriculum will be capable of accepting many job opportunities of a technical nature which exist in the field of veterinary medicine.

For years competently trained personnel have been needed to work in the many different areas of veterinary medicine. In the past veterinarians have attempted to fill these positions with technicians who received their training in the human field or by employing some individual who could receive on-the-job training.

The objectives of the Veterinary Medical Technology curriculum are:

1. Develop knowledge in the areas of reception and record keeping, restraint of animals for examination and treatment, operating room techniques, medication, feeding, and maintaining proper sanitation.
2. Develop proficiency in performing certain laboratory tests incident to the diagnosis and proper care of domestic animals.

3. Understand the importance of effective communication and its application to proper public relations.

Job Description

The curriculum is primarily designed to provide the training for young men and women as technicians to assist the veterinarian with small and large animal practices. Although emphasis in the curriculum is placed on developing proficiency in assisting the private practicing veterinarian, the instruction will also prepare the student for job opportunities in diagnostic laboratories, research, and other areas dealing with animal care.

The veterinary medical technician assists the veterinarian by performing a broad range of responsible technical duties essential for the proper care of animals. Duties include such activities as reception and record keeping, restraint of animals for examination and treatment, assisting in the performance of surgical procedures, performance of laboratory tests, medication, feeding, and maintaining proper sanitation.

	Hrs. Pr. Wk.		Qtr. Hrs.
Course Title	Cl.	Lab.	Cr.
First Quarter			
ENG 101 Grammar	3	0	3
VET 108 Zoology	3	6	6
MAT 100A Fundamentals of Technical Math	3	0	3
VET 110 Large and Small Animal Breeds	5	0	5
SOC 102 Principles of Sociology	5	0	5
	19	6	22
Second Quarter			
ENG 102 Composition	3	0	3
CHM 101 Chemistry I	3	3	4
VET 132 Parasitology	3	4	5
VET 120 Animal Anatomy and Physiology	3	4	5
	12	11	17
Third Quarter			
BUS 102 Typewriting	2	3	3
CHM 106 Chemistry II	3	3	4
VET 130 Laboratory Techniques I	2	4	4
BUS 120A Accounting	3	3	4
VET 134 Clinical Practices I	2	4	4
	12	17	19
Summer Quarter			
VET 299 Cooperative Occupational Education	0	40	4
Fourth Quarter			
ENG 204 Oral Communications	3	0	3
VET 240 Clinical Practices II	3	6	6
VET 242 Laboratory Techniques II	2	4	4
VET 244 Pharmacology, Animal	3	2	4
VET 246A Large Animal Ambulatory	0	2	1
PSY 206 Applied Psychology	5	0	5
	16	14	23

Fifth Quarter

VET 250	Nutrition, Animal	3	0	3
BUS 110	Business Machines	2	3	3
VET 252	Laboratory Techniques III	2	4	4
VET 254	Pathology	3	2	4
VET 256	Clinical Practices III	3	6	6
VET 246B	Large Animal Ambulatory	0	2	1
		13	17	21

Sixth Quarter

ENG 103	Report Writing	3	0	3
VET 268	Large Animal Clinical Practices	2	2	3
VET 262	Laboratory Techniques IV	2	4	4
VET 264	Veterinary Office Practices	4	0	4
VET 266	Clinical Practices IV	3	6	6
VET 246C	Large Animal Ambulatory	0	2	1
		14	14	21

EXIT

AGRICULTURE SCIENCE AND MECHANIZATION (WITH TECHNICAL SPECIALTY OPTION)*

Course Title — **Hrs. Pr. Wk. Cl.** **Lab.** — **QTR. Hrs. Cr.**

AGR 101A Farm Tractors I 0 5 2

A study of farm tractors including gas and diesel engines. Emphasis will be placed on internal combustion engines and electrical systems.

AGR 101B Farm Tractors II 2 3 3

A continued study of gas and diesel farm tractors. Emphasis will be on power trains, braking and hydraulic systems.

AGR 102 Farm Business Management 2 0 2

A review of the functions of the manager of a business firm and the problems of farm operators. Development of the concepts of costs and budgets as an aid in choosing what to produce. An analysis of the factors of production to find the least cost production procedure. Data will be analyzed to select the level of production that yields the highest net revenue. Relationships between size, efficiency, and gross farm income and net farm income will be stressed.

AGR 104 Swine Feeding and Management 3 0 3

A study of the scientific methods of selecting, breeding, feeding, and management of swine. Special attention will be given to housing and marketing.

AGR 105 Pastures and Forage Crops 2 0 2

A study of the major grasses and legumes of economic importance in North Carolina. Attention will be given to management, soil types, fertilization, harvesting and nutrient value.

AGR 106A Techniques of Welding I 2 3 3

This course will cover arc welding. The safe and correct methods of assemblying and operating welding equipment will be stressed. Welded joints discussed and practiced in various positions that are applicable to mechanical repair work and steel fabrication. Care, maintenance and selecting welding equipment and supplies are applied in this course.

AGR 106B Techniques of Welding II 2 3 3

This course will cover gas welding. The safe and correct methods of operating equipment will be stressed. Also included in the course will be flame cutting.

AGR 108 Beef Production 3 0 3

A study of the principles of selecting, breeding, care and management of beef cattle.

AGR 109 Soil Science 3 0 3

This course deals with the development, classification, evaluation and management of soils, care, cultivation and conservation of soil fertilization.

AGR 110 Poultry Production 3 0 3

A study of feeding, housing, and disease and parasite control of poultry. Improved management techniques will be emphasized.

AGR 114 Farm Electrification 0 5 2

A study of basic principles of wiring farm buildings and the application of electricity to agriculture production.

AGR 117 Feeds and Feeding Farm Animals 2 0 2

A study of the composition of feeds, feed additives, and the nutritional requirements of livestock. The course includes a study of the principles used in the formulation of practical and economical livestock rations.

AGR 118 Feed Grain Crops 1 0 1

This course stresses the value of scientific methods in the production of corn, oats, wheat, barley and sorghum. Varieties, soils, fertilization, cultivation, harvesting, and utilization are included.

AGR 122 Farm Machinery Repair and Maintenance 2 3 3

This course emphasizes the proper care of farm machinery and the economic value of proper servicing and management. All kinds of farm machinery will be utilized and the student will develop skills through actual demonstrations and shop practice.

AGR 123 Fruit Production 2 0 2

This course stresses improved management and techniques involved in commercial fruit production.

AGR 124 Plant Propogation 3 0 3

The various means of plant reproduction are scientifically studied. Special attention is given to the propogation of shrubs for the home landscape plan.

AGR 126 Farm Forest Management 2 0 2

A course dealing with the fundamentals of forestry and farm forestry problems, including planting, thinning, harvesting, and marketing.

AGR 128A Farm and Home Construction I 0 5 2

This course deals with the fundamentals of farm carpentry, fences, concrete and masonry. Part of the course gives students an opportunity to learn and practice home construction and the methods of control.

AGR 128B Farm and Home Construction II 2 3 3

This course is designed to give students practice experience in the mixing, pouring, and finishing of cement; building structures with block and brick; and the sheathing and covering of roofs.

AGR 130 Pesticides 3 2 4

A study of the beneficial and harmful insects affecting farm production in North Carolina and the methods of control.

AGR 132 Livestock Diseases and Parasites 3 2 4

A course dealing with the common diseases and parasites of livestock; sanitation practices and procedures with emphasis on the cause, damage, symptoms, prevention and treatment of parasites and diseases, and management factors relating to disease and parasite prevention and control.

AGR 133 Farm Water and Plumbing Systems 0 5 2

This course is a study of the farm water needs and waste disposal. Attention is given to planning and installing the system and its proper care and maintenance.

AGR 134 Crop Production 3 0 3

Improved production practices such as crop rotation, fertilization, disease and pest control will be stressed. Emphasis will be on tobacco and soybeans.

AGR 135 Agricultural Law 3 0 3

A general course designed to acquaint the student with certain fundamentals and principles of law, including contracts, agency and negotiable instruments. Includes the general study of law pertaining to partnership, corporation, sales suretyship, bailments, and real property.

AGR 136 Practical Mathematics 3 0 3

This course will stress fundamental math problems and their application to farm business and computation problems.

AGR 137 Home Appliance Repair 0 5 2

This course teaches the student how to repair all home appliances with emphasis on commonly used electrical appliances and machines in the home or on the farm.

AGR 138 Farm Accounting Procedures 2 0 2

This course will cover the terminology, basic principles, and techniques needed to keep accurate farm records and the use of these records in completing tax forms and computing income tax.

AGR 139 Fertilizers and Lime 3 0 3

A review of the sources, function, and the use of the major and minor plant food elements; commercial fertilizer ingredients; soil acidity, liming materials, application of fertilizer and liming materials.

AGR 140 Vegetable Production 2 0 2

This course stresses propogation of plants by seed, certified seed, cool and warm season vegetables, fertilization, disease and insect control and marketing of vegetables.

AGR 141 Surveying 2 3 3

Theory and practice of elementary plane surveying including horizontal measurements, differential and profile leveling, cross sections, earthwork computations, transit, stadia, and transit-tape surveys.

AGR 142 Agriculture Finance 2 0 2

Analysis of the capital structure of modern commercial agriculture with emphasis on the sources of credit. A review of lending institutions, repayment, schedules and credit instruments. Practice in the procedure of evaluating farm resources with attention to information needed for valuation, appraisal forms and procedures, discounting and depreciation.

AGR 144 Opportunities in Agricultural Business 2 0 2

This course presents the opportunities for part or full-time employment in farm-related occupations. Agricultural business such as feeds and fertilizers as well as farm custom machinery work is considered.

AGR 145 Small Engine Repair 2 3 3

To train people in the maintenance and overhaul of two-and four-cycle engines. Enrollees are taught to repair and replace defective parts of the small engines on lawn mowers, garden tractors, roto tillers, and other farm related machines. Instruction in safety is one of the major responsibilities of the course.

AGR 146 Farm Water Conservation 3 0 3

A study in the layout, construction, and maintenance of farm ponds, drain ditches, waterways, and lagoons.

AGR 147 Local Government and Agencies 1 0 1

A study of the organization and processes of local government as it pertains to counties, municipalities, and agencies.

AIR-CONDITIONING AND REFRIGERATION

AHR 1101 Automotive Air-Conditioning 2 0 6 4

General introduction to the principles of refrigeration; study of the assembly of the components and connections necessary to install units in vehicles.

The student will learn the necessary skills to service all types of air conditioning units commonly found on today's automobiles. Emphasis will be placed on correction of control problems as well as trouble-shooting components.

Prerequisites: PHY 1101, 1102; AUT 1101A, AUT 1106, AUT 1112.

AHR 1104 Boilers and Heating Systems 2 0 6 4

A study of oil and gas fired hot water boilers and hot air furnaces. Trouble-shooting and preventive maintenance will be stressed. Auxiliaries such as water pumps, fans, blowers, and the theory of combustion of fuels will be studies.

Prerequisite: None.

AHR 1120 Domestic Air-Conditioning 2 0 3 3

An introduction to the principles of domestic refrigeration, all types of air conditioning units commonly found in today's homes. To replace and repair such parts as compressors, valves, and tubing. To also correctly recharge a system with refrigerant.

AHR 1121A Commercial Refrigeration Systems 2 0 6 4

An introduction to the principles of commercial refrigeration, terminology, the use and care of tools and equipment, and the identification and function of the component parts of a system. Other topics will be basic laws of refrigeration; characteristics and comparisons of the various refrigerants; the use and construction of valves, fittings, and basic controls. Practical work includes tube bending, flaring and soldering. Standard procedures and safety measures are stressed in the use of special refrigeration service equipment and the handling of refrigerants.

Prerequisite: None.

ART

ART 131 Visual Arts 3 0 3

This course covers the theory, history and awareness of the visual arts as communicative media. Slide lecture and discussion are an integral part of the course.

AUTOMOTIVE MECHANICS

AUT 1101A Engine Tune-up I 1 0 3 2

The course is an introduction to the ignition system found on 4, 6, and 8 cylinder gasoline engines with practice on each of the systems. The course will also include an introduction, a study of, and the use of related test equipment.

AUT 1101B Lubrication 0 0 3 1

The student will learn complete lubricating procedures for all the components of the automobile with emphasis on the proper lubricant for each component.

AUT 1101C Brake Systems 1 0 9 5

Drum and disc brakes systems will be studied with emphasis on theory of operation, inspection, and repair of hydraulic components. Necessary machine operations will include relining shoes, honing wheel cylinders and master cylinders, turning drums, grinding shoes to fit oversize drums and turning disc brake rotors.

Prerequisite: None.

AUT 1102A Charging and Starting Systems 2 0 6 4

This will be a thorough study of the electrical systems of the automobile. Included in the study will be cranking systems, charging systems, regulating systems, ignition systems, lighting systems, and other electrical systems. All related electrical test equipment will be studied during this phase of instruction.

AUT 1102B Engine Fuel Systems 3 0 9 6

This will be a thorough study of fuel systems of the automobile. Included in the study will be fuel pumps, fuel filters, carburetors, and types of fuels. All related fuel testing equipment will be studied during this phase of instruction.

AUT 1103 Steering and Suspension Systems 2 0 6 4

Practical job instruction in adjusting and repairing of suspension and steering systems. The student will learn how to inspect and overhaul all types of suspension systems. Also the student will learn to completely overhaul all types of standard steering assemblies and make all the necessary adjustments.
Prerequisite: None.

AUT 1104 Wheel Alignment and Balancing 3 0 9 6

A thorough study of the theory and practice of front end alignment and balancing techniques of wheels and tires. The student will get practical experience on school owned front end alignment equipment as well as other makes of equipment. Emphasis will be placed on giving the student a complete knowledge of front end alignment theory so that the techniques can be applied to any front end alignment situation. Related areas of front end alignment work will be studied such as wheel balancing and tire truing.
Prerequisite: None.

AUT 1105 Internal Combustion Engines 3 0 9 6

Study of construction and operation of components of internal combustion engines. Testing of engine performance; servicing and maintenance of pistons, valves, cams, camshafts, oil pumps, cooling systems, lubrication systems, exhaust systems, and electrical systems. Emphasis will be placed on testing for problems before the engines are serviced to enable the student to diagnose problems before overhaul.
Prerequisites: AUT 1101A-B and AUT 1102A and B.

AUT 1106 Engine Tune-Up II 2 0 6 4

A study of engine performance with emphasis on modern diagnostic methods. Emphasis will be placed on testing for problems in engine electrical, fuel, and mechanical systems. Modern testing equipment will be studied. Practical problems will be introduced to study trouble-shooting techniques.
Prerequisites: AUT 1101A, AUT 1102A and B.

AUT 1107 Automotive Power Trains 2 0 6 4

A study of standard transmission, clutch systems, drive shafts, and differentials. The student will learn to diagnose problems and to overhaul all types of standard transmissions and differentials. Also, the student will service clutch systems and drive shafts.
Prerequisites: AUT 1105, PHY 1101, and 1102.

AUT 1108 Automatic Transmissions 2 0 6 4

Astudy of operation, service, and repair of automatic transmission systems. Emphasis will be placed on the theory behind the operation of automatic transmissions. The student will learn to test transmissions on the chassis dynomometer. Practical shop application will be given to the study of torque converters, hydraulic control systems, and complex planetary gearing. All popular makes of transmissions will be studied.
Prerequisites: AUT 1105, AUT 1106, PHY 1101, 1102.

AUT 1109 Trouble-shooting Automotive Systems 1 0 9 5

Emphasis is placed on the shop procedures necessary in determining the nature of troubles developed in the various component systems of the automobile. This course is an opportunity to apply some of the knowledge gained in the previous specialized courses. Trouble-shooting of automotive systems provides a full range of experiences in testing, adjusting, repairing, and replacing. All of the previously studied shop equipment will be used.
Prerequisites: All previous required automotive courses.

AUT 1112 Power Accessories 1 0 3 2

A study of service and repair of the common power accessories found in the modern automobile. Study will include power window lifts, power seats, windshield wipers, heaters, defrosters, and directional signals. Further emphasis will be placed on being able to trouble-shoot these items as well as repair.

Prerequisites: PHY 1101, 1102; AUT 1102A and B.

AUT 1215 Exhaust Emission Control 1 0 3 2

A thorough study of the Emission Control Systems on all U. S. and some foreign built cars. Included in the study will be crankcase controls, exhaust emission controls and fuel evaporiative controls. All related emission control test equipment will be studied during this phase of instruction.

Prerequisite: AUT 1101A, AUT 1102A, AUT 1102B.

SPA 1298 Special Problems—Automotive 0 0 9 3

A course designed to permit the automotive student to select areas of study that will make him more proficient in specialized phases of automotive repairs. Emphasis will be placed on having the student increase his knowledge and ability in these areas. Approved areas include brakes, fuel systems, electrical systems, electrical testing, front end alignment, power trains, automatic transmissions, air conditioning, and electrical test equipment. Satisfactory completion of this course should give the student a saleable skill in this specialty.

Prerequisites: All preceding scheduled required automotive courses.

BANKING AND FINANCE

AIB 111 Business Administration 4 0 4

In this course, emphasis is placed on the managerial responsibility of coordinating carefully the many facets of a business enterprise. It also stresses the background of administration, financial management, production, labor-management relations, marketing, coordination and control, and public relations problems.

Prerequisite: None.

AIB 120 Accounting I 4 0 4

This course is based on a new second edition text that supplies a comprehensive treatment of all up-to-date principles and also gives the student ample opportunity through examples, illustrations, and correlated activities to learn how the principles are applied. End-of-unit summaries have special sections for both principles and managerial implications.

Prerequisite: None.

AIB 121 Accounting II 4 0 4

The content of this course was selected with two major objectives in mind: immediate on-the-job usefulness, and contribution to the student's future growth in the banking field. The course consists of a detailed study of balance sheet items, covers manufacturing accounting and product costing, and includes an appropriate study of cost analysis for managerial decisions.

Prerequisite: AIB 120.

AIB 123 Financing Business Enterprise 4 0 4

Stress is placed on the difference between lending and investing, and on the fact that investing in a corporation and financing a corporation are different aspects of the same subject. In this course, the material is presented from the viewpoint of the corporate treasurer who must safeguard the financial future of his corporation.

Prerequisite: None.

AIB 202 Principles of Bank Operation 4 0 4

This course presents the fundamentals of bank functions in a descriptive fashion so that the beginning banker may view his chosen profession in a broad (and operational) perspective. The descriptive orientation is intentional. Banking is increasingly dependent upon personnel who have the broad perspective so necessary for career advancement.

Prerequisite: None.

AIB 203 Bank Investments 4 0 4

Because the bank's needs for primary reserves and loanable funds limit the funds available for investment, this course describes the nature of such funds and how their uses are determined. It also analyzes the primary and secondary reserve needs of commercial banks, the sources of reserves, and their random and cyclical fluctuations, showing the influence of these factors on investment policy. This analysis is followed by a study of yield changes as they affect a bank's long-term holdings.

Prerequisite: None.

AIB 204 Bank Management by Objectives 0 2 1

This middle management seminar is designed to assist bank officers in learning how to translate bank problems into realistic goals, for the individual and the bank, through the management-by-objectives system. Cases and outside readings are used in this seminar. It can be presented as a brief, intense workshop or as an eight-session seminar.

Prerequisite: None.

AIB 205 Bank Management 4 0 4

This course is based on the second edition of the text that presents new trends which have emerged in the philosophy and practice of management. The study and application of the principles outlined provide new and experienced bankers with a working knowledge of bank management. Since case study is becoming well established as an effective management learning technique, this test also introduces the use of cases as a new element.

Prerequisite: None.

AIB 206 Bank Letters and Reports 4 0 4

This course is designed for those bank officers, supervisors, and employees who dictate or review correspondence. Since bank letters are actually public relations documents, all persons should be familiar not only with the mechanical forms of bank letters but also with the psychological principles that help the letter writer achieve best results. The course reviews letter forms, emphasizes fundamental principles underlying modern correspondence, and examines different kinds of bank letters.

Prerequisite: None.

AIB 207 International Banking 4 0 4

The second edition of this text is an introduction to a vast field for those working in international departments, as well as for those involved in the domestic activities of their banks. The essential objective of this course is to present the basic framework and fundamentals of international banking: how money is transferred from one country to another, how trade is financed, what the international agencies are and how they supplement the work of commercial banks, and how money is changed from one currency to another.

Prerequisite: None.

AIB 208 Conference Planning & Leadership 0 2 1

This course is centered on a specific phase of the problem of human understanding. It is concerned with an important responsibility of management: to communicate and to coordinate ideas in the most effective way possible. It gives consideration to the dynamics of human interaction in groups convened to solve problems and make decisions. The essentials of parliamentary procedure are also stressed, thus presenting an effective technique for achieving consensus and formalizing and recording the decision-making process.

Prerequisite: None.

AIB 209 Installment Credit 4 0 4

In this course, the techniques of installment lending are presented concisely. Emphasis is placed on establishing the credit, obtaining and checking information, servicing the loan, and collecting the amounts due. Each phase of a bank's installment credit operation should be carefully scrutinized to be certain that the most efficient methods are employed, for only through an efficient operation can a bank maximize its profits on this particular kind of credit. Other topics discussed are inventory financing, special loan programs, business development and advertising, and the public relations aspect of installment lending.

Prerequisite: None.

AIB 210 Money and Banking 4 0 4

This course stresses the practical aspects of money and banking and emphasizes the basic monetary theory needed by the banking student to apply his knowledge to his particular job. Historical treatment has been kept to a minimum. Emphasis is also placed on such problems as economic stabilization, types of spending, the role of gold, limitations of central bank control, government fiscal policy, balance of payments, and foreign exchange, showing their repercussions on the banking industry in affecting yield curves and the structuring of portfolios.

Prerequisite: None.

AIB 212 Planning Management Development 0 2 1

This middle management seminar is designed to assist bank officers who are responsible for the planning, recruiting, and development of bank management personnel. Cases and outside readings are used in this seminar. It can be presented as a brief-intense workshop or as a twelve-session seminar.

Prerequisite: None.

AIB 213 Trust Functions 4 0 4

This new course presents a complete picture of the services rendered by institutions engaged in trust business. Providing an introduction to the services and duties involved in trust operations, the course is intended for all bankers, not only those who are engaged in trust business. It endeavors to keep clear the distinction between business and legal aspects of trust functions.

Prerequisite: None.

AIB 214 Effective Speaking 4 0 4

In this course, the student is given an opportunity to study all phases of speech situations. Although the text is directed primarily to the student seeking to give an account of himself on the public platform, other speech situations have not been neglected. Having studied the basic principles involved in organizing and presenting a speech, he is given suggestions to aid him in developing his speaking ability in such situations as conferences, panel discussions, radio, and television.

Prerequisite: None.

AIB 218 Psychology 4 0 4

A study of the principles of psychology that will be of assistance in the understanding of inter-personal relations on the job. Motivation, feelings, and emotions are considered with particular reference to on-the-job problems. Other topics investigated are: employee selection, supervision, job satisfaction and conflicts. Attention is also given to personal and group dynamics so that the student may learn to apply the principles of mental hygiene to his adjustment problems as a worker and a member of the general community.

Prerequisite: None.

AIB 219 Credit Administration 4 0 4

This course, directed toward the executive level, concerns itself partly with a statement and a discussion of factors influencing and determining loan

policy. Methods of credit investigation and analysis, credit techniques, specific credit problems, and regular as well as unusual types of loans are discussed.
Prerequisite: None.

AIB 231 Savings and Time Deposit Banking 4 0 4

This course reflects recognition of the fact that a knowledge of the historical development of savings institutions and an awareness of the basic economic function of the savings process are necessary to an understanding of the current operations and policies of these institutions. It begins with a review of the economics of the savings process in order to clarify important differences between financial savings by individuals or organizations and real savings that appear as capital formation. Different types of financial savings are reviewed in order to describe the system of financial flows of income to capital investment.
Prerequisite: None.

AIB 232 Agricultural Finance 4 0 4

Reflecting the rapid growth of the off-farm agribusiness sectors (the suppliers of farm inputs), this course emphasizes general principles associated with the evaluation of management and the use of capital, rather than stressing the examination of land and labor resources, which are more closely aligned with agricultural production. An understanding of agricultural finance should help the banker in satisfying the credit needs of modern agriculture.
Prerequisite: None.

AIB 233 Analyzing Financial Statements 4 0 4

A fourth edition of the textbook is used for this course and is organized into two main sections. Characteristics of Financial Statements and Financial Statement Analysis. The first section serves as a useful review of basic accounting principles for those students who have studied accounting. For those who have not, this section provides the minimum accounting background necessary for profitable study of financial statement analysis.
Prerequisite: None.

AIB 234 Loss Prevention 0 2 1

This seminar focuses on check cashing, check swindles, bank holdups, and security procedures.
Prerequisite: None.

AIB 235 Loan & Discount 3 0 3

This seminar teaches bank employees the essential facts about promissory notes, including calculating interest and discounting commercial paper; guaranties; general collateral agreements; examining and processing documents accompanying notes secured by stocks, bonds, and savings account passbooks, and the concepts of attachment, perfection, priority, default, and foreclosure.
Prerequisite: None.

AIB 236 Home Mortage Lending 4 0 4

This course approaches the subject from the viewpoint of the mortage loan officer who seeks to develop a sound mortgage portfolio. A picture of the mortgage market is presented first, then the acquisition of a mortgage portfolio, mortgage plans and procedures, mortgage loan processing and servicing, and finally the obligations of the mortgage loan officer in overall portfolio management.
Prerequisite: None.

AIB 237 Selling Bank Services 0 2 1

Teaches tellers and new-accounts personnel how to recognize and meet bank customer needs: checking accounts, savings services, loans to individuals, safe deposit boxes, travelers checks and cross selling.
Prerequisite: None.

AIB 239 Bank Public Relations & Marketing 4 0 4

This course discusses the basis of public relations, both internal and external, and seeks simply to explain the why, the what, and some of the how of public relations and marketing. It is intended as an overview for all bankers in terms of what everyone in banking should know about the essentials of bank public relations and marketing.

Prerequisite: None.

AIB 259 Law & Banking 4 0 4

An introduction to basic American law, presenting the rules of law which underlie banking. Topics include jurisprudence, the court system and civil procedure, contracts, quasi-contracts, property, torts and crimes, agencies, partnerships, corporations, sales of personal property, commercial paper, bank deposits and collections, documents of title, and secured transactions. Emphasis is on the Uniform Commercial Code.

Prerequisite: None.

AIB 272 Supervision & Personnel Administration 4 0 4

This course is designed to aid first-line supervisors in making a smooth transition from expert in a particular task to the role of a supervisor who must produce results through the efforts of other people. In this role, the first-line supervisor must reflect management attitudes and carry out management policies while at the same time inspiring his group to achieve friendly cooperation and maximum production. It should be recognized that the same principles are involved at every level of supervision within the organization.

Prerequisite: None.

BIOLOGY

BIO 111 Basic Biology 3 3 4

This course is an introduction to the elementary aspects of cell structure and division, intermediary metabolism, heredity and development.

BIO 112 Human Biology 3 3 4

A study of man from the standpoint of body structure and function, cultural development, and biological relationships.

BUSINESS

BUS 101 Introduction to Business 3 2 4

A survey of the business world with particular attention devoted to the structure of the various types of business organization, methods of financing, types of internal organization, and a general view of management principles.

BUS 102 Typewriting 2 3 3

Introduction to the touch typewriting system with emphasis on correct techniques, mastery of keyboard, simple business correspondence, tabulation, and manuscripts. Minimum speed of 25 net words per minute for five minutes.

BUS 103 Typewriting 2 3 3

Introduction emphasizes the development of speed and accuracy with further mastery of correct typewriting techniques. These skills and techniques are applied in tabulation, manuscript, correspondence, and business forms. Minumum speed of 40 net words per minute for five minutes.

Prerequisite: BUS 102 or equivalent.

BUS 104 Typewriting 2 3 3

Emphasis on production typing problems and speed building. Attention to the development of the student's ability to function as an expert typist, producing mailable copies. The production units are tabulation, manuscript, correspondence, and business forms. Minimum speed of 50 net words per minute for five minutes.

Prerequisite: BUS 103.

BUS 106 Shorthand 6 4 8

A beginning course in the theory and practice of reading and writing shorthand. Emphasis placed on phonetics, penmanship, word families, brief forms, and phrases.

BUS 107 Shorthand 3 2 4

Continued study of theory with greater emphasis on dictation for transcription. Minimum dictation rate of 60 words per minute required for three minutes on new materials.

Prerequisite: BUS 106.

BUS 108 Shorthand 3 2 4

Theory and speed building. Introduction to office style dictation. Emphasis on development of speed in dictation rate of 80 words per minute for three minutes on new material.

Prerequisite: BUS 107.

BUS 109 Business Mathematics 5 0 5

This course stresses the fundamental operations and their application to business problems. Topics covered include payrolls, price making, interest and discount, commission, taxes, and other pertinent uses of mathematics in the field of business.

Prerequisite: None.

BUS 110 Business Machines 2 3 3

A general survey of business calculating machines. Students receive training in techniques of operation and application of ten-key adding machines, full keyboard adding machines, ten-key calculators, and various types of electronic calculators.

Prerequisite: BUS 109.

BUS 112 Filing 3 0 3

Fundamentals of indexing and filing, combining theory and practice by use of miniature letters, filing boxes, and guides.

BUS 115 Business Law 3 0 3

A general course designed to acquaint the student with certain fundamental principles of the Uniform Commercial Code, including contract, employment, and agency law.

BUS 116 Business Law 3 0 3

Includes the study of the Uniform Commercial Code pertaining to negotiable instruments, bailments, sales, risk-bearing, partnerships, corporations, and property rights.

Prerequisite: BUS 115.

BUS 117 Machine Transcription
(Executive-Legal-Medical) 2 2 3

The student is required to complete production units on the typewriter from dictation-transcription machines of correspondence and documents in their specialized areas; i.e., case histories and medical reports or wills and complaints, etc.

Prerequisites: BUS 104 and BUS 183.

BUS 120 Accounting I 5 5 7

An introductory course which acquaints the student with the basic concepts and methodology used in accounting, the role of accounting in business, and the use of valuation and income determination principles.

BUS 120A Accounting I 3 3 4

A fundamental course in principles and application of accounting for students other than business majors; includes the complete accounting cycle of recording, sorting, summarizing, and analyzing typical transacting for both service and mercantile enterprises.

BUS 121 Accounting II 5 5 7

Partnership and corporation accounting including a study of payrolls, Federal and State taxes. Emphasis is placed on the recording, summarizing, and interpreting of data for management control rather than on bookkeeping skills. Accounting services are shown as they contribute to the recognition and solution of management problems.

Prerequisite: None.

BUS 123 Business & Managerial Finance 3 2 4

Includes a study of financial statement analysis, capital budgeting, and time value of money.

Prerequisite: BUS 222.

BUS 134 Personal Development 3 0 3

Designed to help the student recognize the importance of physical, intellectual, social, and emotional dimensions of personality. Emphasis is placed on poise, grooming, and methods of personal improvement.

BUS 162 Fundamentals of Real Estate I 3 0 3

Fundamental principles and theories of real estate are covered including terminology, North Carolina's licensing laws, ethics, legal environment, forms and instruments, mathematics, finance, closing statements and procedures.

Prerequisite: None.

BUS 163 Fundamentals of Real Estate II 3 0 3

This course is a continuation of BUS 162—Fundamentals of Real Estate I. Theory and practice of real estate are covered including methods of financing, appraisals, liens, leases, judgments, easements, federal and state legislation, zoning, advertising, and marketing.

Prerequisite: None.

BUS 164 Real Estate Law 3 0 3

A survey course of law as it relates to real estate activities including the legal aspects pertaining to the sale, purchase, and management of real property. Special emphasis is placed on the legal steps needed to handle the closing statement.

Prerequisite: None.

BUS 183 Terminology & Vocabulary Dictation (Medical) 3 2 4

To develop an understanding of the medical terminology and vocabulary appropriate to the medical office with emphasis on the dictation of terminology and case history studies.

Prerequisite: BUS 108.

BUS 184 Terminology & Vocabulary Dictation (Legal/Industrial) 3 2 4

To develop an understanding of the legal and industrial terminology and vocabulary used in legal and industrial offices. Emphasis is on legal documents and various industrial reports.

Prerequisite: BUS 183.

BUS 205 Advanced Typewriting 2 3 3

Emphasis is placed on the development of individual production rates. The student learns the techniques needed in planning and in typing projects that closely approximate the work appropriate to the field of study. These projects include review of letter forms, statistical tabulation, and the typing of reports, and legal documents.

Prerequisite: BUS 104.

BUS 206 Dictation and Transcription 3 2 4

Develops the skill of taking dictation and of transcribing at the typewriter materials appropriate to the course of study which includes a review of the

theory and the dictation of familiar and unfamiliar materials at varying rates of speed. Dictation rate of 100 words per minute required for three minutes of new material.
Prerequisite: BUS 108.

BUS 207 Dictation and Transcription 3 2 4

Covering materials appropriate to the course of study, the student develops the accuracy, speed, and vocabulary that will enable her to meet the stenographic requirements of business and professional offices. Dictation rate of 110 words per minute required for three minutes on new materials.
Prerequisite: BUS 206.

BUS 208 Dictation and Transcription 3 2 4

Principally a speed building course, covering materials appropriate to the course of study, with emphasis on speed as well as accuracy. Dictation rate of 120 words per minute required for three minutes on new material.
Prerequisite: BUS 207.

BUS 209 Real Estate Finance 5 0 5

A study of real estate finance including an analysis of financial institutions, techniques, and instruments necessary in real estate. Topics include the sources of funds, types of mortgages, role of government agencies, interest rates, loan costs and closings and competition in the money market.
Prerequisite: BUS 120.

BUS 211 Office Machines 2 3 3

Instruction in the operation of machines used for stencil duplication, spirit duplication, and offset duplication. Training also given on use of the IBM Executive typewriter, photocopying equipment, the postage scale, and the postage meter.

BUS 214 Secretarial Procedures 3 2 4

Designed to acquaint the student with the responsibilities encountered by a secretary during the work day. These include the following: receptionist duties, handling the mail, telephone techniques, travel information, telegrams, office records, purchasing of supplies, office organization, and insurance claims.
Prerequisite: BUS 104.

BUS 216 Real Estate Sales 3 0 3

A study of the current sales techniques in the real estate industry, including problems in selling as well as emphasis on consumer motivation and reactions. Particular emphasis is placed on morals and ethics related to the sale of real property. Other topics include the methods of securing property listings and prospective customers, bringing the prospect and property together, the use of advertising in the selling function, the basic development of a sales plan and sales presentation.
Prerequisite: None.

BUS 219 Credit Procedures and Problems 3 0 3

Instruction in the principles and practices in the extension of credit including classes of credit, credit instruments, determining credit risk, sources of credit information, collection, methods, and the role of the credit manager.

BUS 221 Real Estate Investments and Taxation 3 0 3

A study of fundamental investment concepts including location, timing and methods of financing, designed to provide the prospective investor with a guide to successful real estate investment. Emphasis will be placed on investment during the development process, what to buy and how to buy. Other topics to be discussed are how to take title for individual ownerships or partnerships, when to invest in real estate corporations and trusts, tax consequences or investment, and the influence of federal and state laws on real estate investments.
Prerequisite: BUS 120.

BUS 222 Accounting III 3 6 6

A study of accounting principles relating to corporations, departments, branches, and the effects of income tax accounting on business decision making. Interpreting data for management control is stressed.

Prerequisite: BUS 121.

BUS 224 Intermediate Accounting I 5 2 6

A thorough review of the accounting process with emphasis placed on the earnings statement, the position statement, and cash flow statements. Also includes a detailed study of current receivables and current liabilities.

Prerequisite: BUS 222.

BUS 225 Cost Accounting 3 4 5

A study of costs systems, including job order, process, and standard costs. Managerial use of information is stressed.

Prerequisite: BUS 222.

BUS 226 Land Development 3 2 4

A study of the land and population economics of land utilization and the development factors related to manufacturing, labor, transportation and commerce in or near the development location.

Prerequisite: None.

BUS 226 Intermediate Accounting II 3 2 4

Further study of intermediate accounting including inventory evaluation; acquisition, retirement, and depreciation of plant assets; and accounting for intangible assets.

Prerequisite: BUS 224.

BUS 228 Land Use Policy & Governmental Influences on Real Estate 3 0 3

A study of the local and national trends in the development, use and value of real property, as well as governmental policies and their effect on the real estate market. Skills are developed in the analysis, research and correlation of the various trends, policies, and factors affecting real estate.

Prerequisite: None.

BUS 229 Tax Accounting I 3 4 5

An introduction to federal taxes on income, income tax withholding; declaration of estimated tax by individuals; preparation of income tax returns for individuals; partnership and corporation returns.

Prerequisite: BUS 120.

BUS 231 Real Estate Merchandising 3 0 3

A survey of the field of real estate advertising with emphasis on the relationship to the market structure of our economy.

Prerequisite: BUS 216, 239.

BUS 232 Salesmanship I 2 2 3

A study of retail, wholesale, and specialty selling. Emphasis is placed upon mastering and applying the fundamentals of selling. Preparation for and execution of sales demonstrations required.

BUS 233 Personnel Management 4 0 4

Principles of organization and management of personnel, procurement, training, performance reviews, fringe benefits and security are given attention. Methods of evaluating individual performance and the conducting of performance reviews are stressed.

BUS 234 Salesmanship II 3 2 4

An advanced and additional study of retail, wholesale, and specialty selling. Emphasis is placed upon mastering and applying all fundamentals of selling. Preparation for and execution of sales demonstrations required.

Prerequisite: BUS 232.

BUS 235 Principles of Management 3 2 4

An analysis of the underlying theory and principle of sound business organization and management including mechanisms and methods required for administrative and managerial control.

BUS 239 Marketing 5 0 5

A general survey of the field of marketing, with a detailed study of the function, policies, and institutions involved in the marketing process.

BUS 243 Advertising 3 2 4

The role of advertising in a free economy and its place in the media of mass communications. A study of advertising appeals; product and market research; selection of media; means of testing effectiveness of advertising. Theory and practice of writing advertising copy for various media.

BUS 245 Retailing 3 0 3

A study of the role of retailing in the economy, including development of present retail structure, functions performed, principles governing effective operation, and managerial problems resulting from current economic and social trends.

BUS 247 Business Insurance 4 0 4

A presentation of the basic principles of risk insurance and their application. A survey of the various types of insurance is included.

BUS 263 Payroll Taxes 3 0 3

An examination of Federal, state, and local laws as they pertain to payroll taxes. Includes a review of the record-keeping needs to meet the information demand of the taxing authority. Also gives insight into the different payroll systems and accounting procedures used in relation to payroll taxes.
Prerequisite: BUS 120.

BUS 266C Budgets & Records 5 0 5

An analysis of the internal organization of a recreation department dealing with finances and accounting; records and reports; staff organization; and coordination of departmental resources.

BUS 269 Auditing 4 2 5

A study of auditing theory and practice. Emphasis on auditing standards, procedures, rules of professional conduct, and related material of professional importance.
Prerequisite: BUS 224.

BUS 270 Advanced Accounting 3 2 4

Advanced accounting problem involving foreign exchange and branches, domestic branches, estates and trusts, consignment sales, and price-level changes.
Prerequisite: BUS 224.

BUS 271 Office Management 3 0 3

Presents the fundamental principles of office management. Emphasis on the role of the office management including its functions, office automation, planning, controlling, organizing to solve office problems.

BUS 272 Principles of Supervision 4 0 4

Introduces the basic responsibilities and duties of the supervisor and his relationship to superiors, subordinates, and associates. Emphasis on securing an effective work force and the role of the supervisor. Methods of supervision are stressed.

BUS 292 Appraisals I 3 0 3

A study of the principles and theory of appraising real property. Topics studied include site evaluation, building materials and components, methods

of appraising property, professional organizations and developing and operating an appraisal business.
Prerequisite: Experience or recommendation of instructor.

BUS 293 Appraisals II 2 3 4

A study of the methods and techniques used in estimating the value of residential properties. Topics include analysis of economical factors affecting the value of real estate, local, state, federal and neighborhood influences and attitudes, economical factors, and estimation of value.
Prerequisite: BUS 292 or equivalent experience.

BUS 294 Appraisals III 2 3 4

A study of the capitalization of income and the income approach to value. Topics covered include an analysis of steps to estimate the value of income-producing properties such as apartments, hotels, motels, office buildings, retail stores, industry, etc.; interest rates; recapture rates; capitalization rates; and appraisal of lease interests.
Prerequisite: BUS 292 or equivalent experience.

BUS 296 Property Management 3 0 3

A study of the nature of property management, the types of property, lease preparation, protection of property and property maintenance. Other topics include fair housing, tenant selection, advertising, ethics, budgeting, and associations with people.
Prerequisite: BUS 162, 163, 120, 121, 164.

BUS 1103 Small Business Operation 3 0 3

An introduction to the business world, problems of small business operation, business forms and records, financial problems, ordering and inventorying, layout of equipment, and employer-employee relations.

CHEMISTRY

CHM 101 Chemistry I 3 3 4

Study of the physical and chemical properties of substances, chemical changes, elements, compounds, gases, chemical combinations; weights and measurements; theory of metals; acids, bases, salts, solvents, solutions and emulsions. In addition, study of electrolytes, electrolysis and chemical mathematics.
Prerequisite: MAT 100A.

CHM 101A Chemistry for Law Enforcement 3 2 4

This course is an overview of the basic principles of inorganic chemistry with introduction into organic chemistry. Basic types of chemical instrumentation are surveyed as to general operation and uses in law enforcement. Topics include: atomic structure; chemical change; periodic chart; nomenclature; solutions; ionization; acids; bases and salts. The more common elements and compounds are also investigated. Nine basic groups of organic compounds are briefly studied. This course is pointed towards law enforcement whenever possible.
Prerequisite: None.

CHM 106 Chemistry II 3 3 4

General principles and theories of organic chemistry. Preparations, formulas, and properties of the most important organic compounds such as: saturated and unsaturated hydrocarbons; aromatic hydrocarbons; alcohols and phenols; ethers; carbonyl compounds; carboxylic acids; carbohydrates and proteins. Also a brief descriptions of synthetic compounds of commercial value in addition to the main vitamins, antibiotics, and hormones.
Prerequisite: CHM 101.

COMMERCIAL ART

CAT 116 Photography 2 3 3

An introduction to the field of photography, photographic equipment and materials; a study of the fundamental techniques of the camera and its expressive possibilities to legal use.

Prerequisite: None.

CORRECTION TECHNOLOGY

CJC 102 Criminology 5 0 5

A general course designed to introduce the student to the causation of crime and delinquency. The historial and contemporary aspects of crime, law enforcement, punishment, and correctional administration will be discussed.

CJC 203 Correction 5 0 5

An examination of the total correctional process from law enforcement through the administration of justice, probation, prisons and correctional institutions, and parole. This course will provide a history and philosophy in the field of correction.

CJC 204 Paroles, Probations, and Pardons 3 0 3

Probation as a judicial process and parole as an executive function are examined as community-based correctional programs and the use of pardons is reviewed.

CJC 206 Community Relations 5 0 5

This course is designated to provide the student with an understanding of community structures, as they relate to minority groups, peer groups, socioeconomic groups, leader groups, and group relations. Emphasis will be placed on the organization and function of these groups as they relate to the profession of criminal justice-protective service.

CJC 207 Confinement Facilities Administration 3 2 4

This course is designed to familiarize the student with the supervision and administration of confinement facilities involving techniques of inmate supervision, security, medical care of prisoners, food preparation, sanitation, and various legal aspects controlling desention facilities, correctional, institutions, and jails.

CJC 209 Correction Law 3 0 3

The student will become familiar with the specific laws as they pertain to correction, care, custody, and control.

CJC 212 Drugs 3 2 4

This course is designed to give the student an opportunity to study the problems of drug abuse and the effects drugs have on the human body. Emphasis will be placed on the recognition, classification, and investigations of drug abuse.

CJC 220 Constitutional Law 3 0 3

This course is designed to give the student an understanding of the "Constitutional Rules" under which the Criminal Justice officer must operate as a trained professional. Emphasis will be placed on the development of the Constitution and the history of the Bill of Rights. A review of leading decisions handed down by the Supreme Court will be included to give the student an understanding of the processes used by the Court in reading its conclusions.

CJC 221 Correction Administration 3 0 3

Emphasis is placed on the principles of administration in the correctional setting including budgeting and financial control; recruitment and development of staff; administrative decision making; public relations; and other correctional administrative functions.

CJC 223 Correction Counseling 3 2 4

An in-depth study of counseling designed to provide the student with information pertaining to counseling techniques as they apply to the needs of a correction officer. Time is provided for role playing and other practical techniques.

CJC 224 Rehabilitation 3 0 3

This course is designed to provide the student with the opportunity to explore the different avenues of rehabilitation. The new and innovative techniques of rehabilitation will be emphasized as they relate to successful methods.

CJC 234 Community Based Corrections 3 0 3

Community resources that can be utilized in the correction process are examined such as vocational rehabilitation, alcohol detoxification and other units, welfare services, child guidance and mental health clinics; also, employment services, private volunteer, professional assistance, legal aid, and other pertinent services.

CJC 250 Crime and Criminal Careers 3 0 3

This course is designed to give the student a typological view of the criminal offender. Emphasis will be placed on the explanation of the classification of criminals according to their criminal behavior. Criminal behavior will be viewed as a "career role" in society.

DATA PROCESSING

EDP 104 Introduction to Data Processing 2 2 3

Fundamental concepts and operational of data processing systems, as an aid in developing a basic knowledge of computers, prerequisite to the detail study of particular computer problems.

EDP 110 Keypunching 2 2 3

Instruction in the operation of the IBM 029 Cardpunch machine. Prerequisite: BUS 102 or equivalent.

DRAFTING & DESIGN—MECHANICAL

DFT 101 Technical Drafting 0 6 3

The field of drafting is introduced as the student begins study of drawing principles and practices for print reading and describing objects in the graphic language. Basic skills and techniques of drafting included are: use of drafting equipment, lettering, freehand orthographic and pictorial sketching, geometric construction, orthographic instrument drawing of principal views, and standards and practices of dimensioning. The principles of isometric, oblique, and perspective are introduced.

Prerequisite: None.

DFT 102 Technical Drafting 0 6 3

The application of orthographic projection principles to the more complex drafting problems, primary and secondary auxiliary views, simple and successive revolutions, and sections and conventions will be studied. Most important is the introduction of the graphical analysis of space problems. Problems of practical design elements involving points, lines, planes, and a combination of these elements shall be studied. Dimensioning practices for "details" and "working drawings", approved by the American Standards Association will also be included. Introduction is given to intersections and developments of various types of geometrical objects.

Prerequisite: DFT 101.

DFT 103 Technical Drafting 0 6 3

Intersection and developments and their practical solutions. Where applicable, model solutions accompany the problems. The various techniques employed to produce and render isometric and oblique drawings, isometric, dimetric, and trimetric projections, will be included.

Prerequisite: DFT 101.

DFT 118 Drafting and Blueprint Interpretation 3 2 4

Basic drafting fundamentals and blueprint reading are covered from a management point of view. The student will learn to use, read, and understand basic drafting techniques, blueprints and scale drawings.

Prerequisite: None.

DFT 201 Technical Drafting 0 6 3

Applications and constructions of charts, graphs, and nomographs in engineering and technical data. Screw threads, springs, keys, rivets, piping, and welding symbols, methods of representing and specifying will be covered. Basic mechanisms of motion transfer, gears and cams, will be studied and drawn with emphasis on methods of specifying, calculating, dimensions, and delineating.

Prerequisite: DFT 101.

Corequisite: MAT 102.

DFT 204 Descriptive Geometry 2 4 4

Graphic analysis of space problems involving points, lines, planes, connectors, and a combination of these. Practical design problems will be stressed with analytical vertification where applicable. Visualization shall be stressed on every probelm.

Prerequisite: DFT 101.

DFT 211 Mechanisms 3 2 4

Mathematical and drafting room solutions of problems involving the principles of machine elements. Study of motions of linkages, velocities and acceleration of points within a link mechanism; layout methods for designing cams, belts, pulleys, gears, and gear trains.

Prerequisites: DFT 201, MAT 103, PHY 102.

DFT 212 Jig and Fixture Design 2 6 4

Commercial standards, principles, practices and tools of jig and fixture design. Individual project and design work to acquaint students with the types of jigs and fixtures and their design.

DFT 213 Die Design 2 4 4

The study of piercing, blanking, bending and drawing dies. The student will design both simple and multiple stage dies employing layout and detail drafting.

Prerequisites: DFT 101; DFT 102; DFT 103; DFT 201.

DFT 1101 Automotive Schematics and Diagrams 1 0 3 2

Interpretations and reading of manufacturers' blueprints, schematic drawings, pictorials, charts, wiring diagrams, and service specifications. Basic principals of lines, views, dimensioning, and notes will be covered. Sketching will be introduced. All problems as applied to automotive trade.

Prerequisite: None.

DFT 1104 Blueprint Reading I 3 0 0 3

Interpretation and reading of blueprints. Information on the basic principles of the blueprint; lines, views, dimensioning procedures and notes.

DFT 1105 Blueprint Reading: Mechanical 5 0 0 5

Further practice in interpretation of blueprints as they are used in industry; study of prints supplied by industry; making plans of operations; introduction to drafting room procedures; sketching as a means of passing on ideas, information and processes.

DFT 1106 Blueprint Reading 1 0 4 2

Advanced blueprint reading and sketching as related to detail and assembly drawings used in machine shops. The interpretation of drawings as complex parts and mechanisms for features of fabrication, construction and assembly.

DFT 1110 Blueprint Reading Building Trades 0 6 2

Principles of interpreting blueprints and specifications common to the building trades. Development of proficiency in making three view and pictorial sketches. Practice in reading details to grades, foundations, walls, elevations, chimneys, fireplaces, arches, and cavity wall construction.

DFT 111 Blueprint Reading and Sketching 0 6 2

Designed to develop abilities in reading complex drawings in the masonry field. Blueprints of residential and commercial buildings will be studied with emphasis on the plot plan, floor plan, basement and/or foundation plan, walls and various detailed drawings of masonry work.

Prerequisite: DFT 1110.

ECONOMICS

ECO 102 Economics 3 0 3

The fundamental principles of economics including the institutions and practices by which people gain a livelihood. Included is a study of the laws of supply and demand and the principles bearing upon production, exchange, distribution, and consumption both in relation to the individual enterprise and to society at large.

Prerequisite: None.

ECO 102A Economics in Business and Industry 4 0 4

Basic principles of capitalism, the function of government, the laws of supply and demand, wages, productivity, and the profit motive are stressed. Group discussions (conference method) are used frequently to fully explore the subject matter.

Prerequisite: None.

ECO 104 Economics 3 0 3

Greater depth in principles of economics, including a penetration into the composition and pricing of national output, distribution of income, international trade and finance, and current economic problems.

Prerequisite: ECO 102.

ECO 201 Labor Economics and Relations 4 0 4

Emphasis is placed on the history of the labor movement in the United States, the development of methods and strategies by labor organizations and management, and the factors of income and economic security. The Workmen's Compensation Act, Equal Employment Opportunity, and other Federal legislation is highlighted as part of the lab experience.

Prerequisite: None.

ECO 223 General Economics 3 0 3

A study of the basic features of the national economy, with emphasis on economic institutions; determination of national income; economic fluctuations; functions of money and banking; the economic role of government; labor problems; international trade, and economic growth.

ECO 224 General Economics 3 0 3

A study of the basic economic concepts as they apply to the individual business firm, with emphasis on an analysis of demand, supply, and costs; production and pricing under the different market conditions; allocation of economic resources and determination of the shares of the national income paid to the different factors of production.

EDUCATION

EDU 221 Introduction to the Study of Education 3 0 3

Development of our modern educational system, with emphasis on historical background; aims of education in a democracy; how our present elementary, secondary, and higher education levels came into existence; duties of the teacher; purpose of the curriculum; plant; support and control of schools. Designed to be a foundation for further study in education. Required of all prospective teachers.

Prerequisite: Psychology 222.

ELECTRICITY

ELC 112C Electrical Fundamentals I 5 4 7

A qualitative study of units of measurement; fundamental concepts of electrical quantities such as electromotive force, current, resistance, power and energy; properties of simple circuits; and basic electrical instruments and measurements. Concepts taught are generally limited to fundamentals with very little emphasis on quantitative aspects. Laboratory work will emphasize measurement techniques to support class theory, proper use and care of basic hand tools, and the development of the basic manual skills needed in electrical and electronic trades. Safety practices will be stressed throughout the course.

ELC 113C Electrical Fundamentals II 3 4 5

Additional electrical concepts and circuit analysis procedures as applied to more complex two-terminal and simple two-port network are introduced. Laboratory work will include additional measurement techniques with emphasis on verification of theoretical concepts.

Prerequisite: ELC 112C.

ELC 114 Electrical Fundamentals III 3 2 4

Advanced circuit analysis techniques as applied to two-port passive networks are introduced with emphasis on analysis and mathematical computations. Laboratory experiences are used to support analysis activities.

Prerequisite: ELC 113C.

ELC 1112 Direct and Alternating Current 5 11 9

A study of the structure of matter and the electron theory, the relationship between voltage, current and resistance in series, parallel and series-parallel circuits. Analysis of direct current circuits by Ohm's law and Kirchhoffs law; sources of direct current potentials. Fundamental concepts of alternating current flow; a study of reactance, impedance, phase angle, power and resonance and alternating current circuit analysis.

Prerequisite: None.

ELC 1112A Direct and Alternating Current I 1 0 6 3

A study of the electrical structure of matter and the electron theory, the relationship between voltage, current, and resistance in D.C. circuits and voltage, current and impedance in A.C. circuits. Fundamental concepts of direct and alternating current. The National Electric Code requirements for house wiring and practical application projects in house wiring.

ELC 1112B Direct and Alternating Current II 3 0 9 6

A continuation of 1112A.

Prerequisite: ELC 1112A.

ELECTROMECHANICAL

EMS 1101 Industrial Maintenance Shop Practice 2 0 6 4

An introduction to the nature of the work required of an industrial maintenance mechanic and his role in industry. This course will deal with identification, care, and use of basic hand tools used by a maintenance mechanic, portable power tools, and measuring devices. Special tools and holding devices will be produced. Methods of bending and forming industrial pipe, tubing, and conduit will be taught along with threading operations. Benchwork such as filing, shaping, and forming metal shapes will be practiced. Good housekeeping and safety shop practices will be stressed.

Prerequisite: None.

EMS 1102 Electromechanical Systems I 3 0 9 6

An introduction to electromechanical devices and systems including motors, switches, transformers, breakers, starting controls, and electrical circuitry. The student will work with manufacturers' specifications and schematics in building mock-ups. Measuring and testing equipment common to electromechanical equipment will be studied.

Prerequisite: ELC 1112A.

EMS 1102A Fundamentals of Electric Motors. 2 0 6 4

A study of the fundamentals of motors and controls. The systems including motors and starting controls. The student will be taught to repair and replace defective parts of the motor and starting operation.

EMS 1103 Electromechanical Systems II 3 0 9 6

A continuation study of electromechanical devices and systems with special emphasis on pressure and vacuum gauges, pumps, blowers, control signals and devices, electromechanical valves, and electronic mechanisms that automatically operate machinery. Mock-ups will be built to study the different types of devices and systems. Measuring and testing equipment common to electromechanical equipment will be stressed.

Prerequisite: EMS 1102.

EMS 1105 Facility Maintenance 1 0 6 3

The student will work in construction practices at various types of repairs, planning and layouts. General building and repairs will take place. Standard procedures and safety measures are stressed in all maintenance work.

EMS 1110 Electrical Systems Design 2 0 3 3

Students will be assigned an electrical design project whereby they must draw the total layout to scale using proper drawing techniques and symbols. Amount, size, and cost of all materials including labor will be calculated, and a total bill of material will be developed. Profit or loss will be figured.

ELECTRONICS ENGINEERING

ELN 121 Electronics I 3 4 5

Presents qualitative electronics concepts beginning with systems and networks proceeding to devices. Typical networks such as power supplies, amplifiers, oscillators, and feedback circuits are introduced. Solid-state devices and vacuum tubes are introduced as idealized devices. Experience is provided in basic troubleshooting techniques. Instruments are introduced for simple testing and measurements.

Prerequisite: ELC 113C.

ELN 122C Electronics II 5 4 7

A quantitative study beginning with active control devices and proceeding to active networks. A variety of equivalent models are used to evaluate device and system parameters and predict circuit performance. Instruments

are used in laboratory to collect data, verify mathematical predictions, and troubleshoot circuits.
Prerequisite: ELN 121.

ELN 123 Electronics III 3 4 5

A continued study of active networks. Emphasis is on analysis and design of both passive and active networks. In addition, fundamental applications of linear integrated circuits are introduced. Design techniques are given for various types of linear integrated circuits.
Prerequisite: ELN 122C.

ELN 218 Pulse, Logic, and Digital Circuits 3 4 5

Emphasizes the study of wave shaping and non-sinusoidal wave generating circuits using discrete and integrated components. Topics covered under wave shaping include simple passive wave shaping curcuits and more complicated wave shaping circuits using active devices. Topics covered under non-sinusoidal wave generating circuits include: multivibrators, sweep generators, and other types of special purpose circuits using discrete and integrated components. An introduction to Boolean algebra and its applications for the simplification of logic circuits is also included.
Prerequisite: ELN 123, MAT 103.

ELN 219 Digital Fundamentals 3 4 5

Emphasizes the study of combinational and sequential logic circuits using discrete and integrated components. Topics include: binary arithmetic, numbering systems, Boolean algebra, storing, timing, gating, and counting. Typical applications in industry are also presented.
Prerequisite: ELN 218.

ELN 241C Electronic Systems I 3 4 5

A general survey of electronic systems with emphasis on their description in block diagram format. Systems to be studied are those used in communications, computing, measurements, and automatic controls and others of specialized nature as appropriate.
Prerequisite: ELN 123.

ELN 243C Electronic Systems III: Communications 5 4 7

A study of specialized electronic communications systems such as television, microwave, radar, and optical communication systems. Discussion of sampling and pulse systems including techniques of multiplexing such as PAM, PWM, PCM.
Prerequisite: ELN 241C.

ELN 246 Electronics Design Project 0 6 3

A laboratory class emphasizing independent design and development work by the student. The student will select a project in consultation with the instructor; perform the required research; compile data, formulate a theoretical model; and construct, test, and evaluate a working model of the selected project.
Prerequisite: ELN 241C.

ELN 247C Electonic Systems II: Computers 5 4 7

Consists of functional block diagram analysis of a number of digital computer systems. Emphasis is placed on mini/micro computer variety currently being used in industry. The lab will provide practice in manipulating the hard and software associated with such computers.
Prerequisites: ELN 241C, ELN 219.

Following is a listing of additional specialized electives related to communications and computers that may be offered during the sixth or seventh quarter depending on their need.

ELN 242 Electronic Systems II: Communications 5 4 7

Introduction to fundamental aspects of electronic communication systems with special emphasis on need for modulation, types of modulation, frequency spectra, and bandwidth requirements. Principles of AM, SSB, and FM and their frequency spectra. Qualitative study of generation and detection of AM, SSB, and FM signals. Transmission and propagation of radio signals will be studied.

Prerequisite: ELN 241C.

ELN 225 Transmission and Propagation 3 0 3

Characteristics of transmission lines, reactance properties of transmission lines, and the application of lines as circuit elements at RF. Smith's chart and its applications. Introduction to electromagnetic radiation, propagation characteristics of ground waves, ionospheric, and space waves. Antenna parameters and characteristics of grounded and un-grounded antennas, high frequency directional antennas, microwave and wideband special purpose antennas.

Prerequisite: ELC 114.

ELN 227 UHF and Microwave Fundamentals 5 4 7

Transmission lines at UHF, wave propagation through co-axial lines and their limitations at microwave frequencies. Types of electromagnetic guided waves and a brief discussion of wave propagation through waveguides and other guided resonators and other anciliary microwave components. Qualitative discussion of different types of microwave tubes and solid-state microwave devices and some important microwave measurement techniques.

Prerequisite: ELC 114.

ELN 248 Electronic Systems III: Computers 5 4 7

This course deals with the detailed theory of the computer systems previously covered followed by troubleshooting and maintenance procedures. The lab consists of digital measurements in support of operation theory followed by actual troubleshooting practice, dealing with symptoms analysis and diagnostic procedures.

Prerequisite: ELN 247.

ELN 1112 Vacuum Tubes and Solid State Devices 6 0 10 10

An introduction to vacuum tubes and their development; the theory, characteristics and operation of vacuum diodes, semi-conductor diodes, rectifer circuits, filter circuits, triodes and simple voltage amplifier circuits. Transistor theory, operation, characteristics, and their application to audio and radio frequency amplifer and oscillator circuits. Trouble-shooting and repair of solid state devices.

Prerequisites: ELC 1112, MAT 1115.

ELN 1113 Television Theory and Circuits 5 0 6 7

This is a beginning theory course which introduces the study of the following: brightness control and DC re-insertation circuits, video detector stages, automatic gain control circuits, defection oscillator and amplifer stages, automatic frequency control circuits, picture IF amplifier stages and RF tuner units, etc. Shop work will include construction, analysis, testing, and simple trouble-shooting of the stages studied in class. Visual alignment and adjustments of control circuits are performed.

Prerequisites: ELC 112, ELN 1112, MAT 115.

ELN 1125 Radio Receiver and Amplifer Servicing 4 0 12 8

An introduction of commonly used servicing techniques as applied to monophinic and stereophonic high fidelity amplifier systems and auxiliary equipment. The operation and servicing of inter-communication amplifiers and switching circuits will also be taught. Principles of radio reception and practices of servicing; included are block diagrams of radio receivers, servicing techniques of AM and FM receivers by resistance measurements, signal injection, voltage analysis, oscilloscope methods of locating faulty stages and components and the alignment of AM and FM receivers.

Prerequisites: MAT 1115, ELN 1112, ELC 1112.

ELN 1127 Television Receiver Circuits and Servicing 9 0 18 15

A study of principles of television receivers, alignment of radio and intermediate frequency amplifiers, adjustment of horizontal and vertical sweep circuits will be taught. Techniques of trouble-shooting and repair of TV receivers with the proper use of associated test equipment will be stressed. Additional study of more specialized servicing techniques and oscilloscope waveform analysis will be used in the adjustment, trouble-shooting and repair of the color television circuits.

Prerequisites: ELN 1113, ELN 1125.

ENGLISH

ENG 101 Grammar 3 0 3

A course designed as a review and refresher of the basic elements of our language and its standard usage. Brief explanations will be followed by practice to assure understanding of usage.

Prerequisite: None.

ENG 101A Grammar 3 0 3

A course to include the study of grammar—nouns, pronouns, verbs, and sentence structure; the study of dictionary use; and the study of vocabulary; all of these to promote more accurate and precise communication in daily activities.

Prerequisite: None.

ENG 101B Grammar 3 0 3

A continuing explanation of the grammar of English which gives special attention to adjectives, adverbs, conjunctions, prepositions, capitalization, abbreviations, and figures. Attention to vocabulary building and spelling also will be included.

Prerequisite: ENG 101A.

ENG 102 Composition 3 0 3

This course in composition stresses factual writing. Students learn to state the purpose of their papers and then explain, tell what happened, persuade, and summarize on subjects related to their major field of interest. In addition, practice is provided in writing letters of application for employment.

Prerequisite: ENG 101 or 101A.

ENG 103 Report Writing 3 0 3

A course to illustrate the need and structure of the various types of reports. This study will include form necessary for reports, needed elements of reports, methods of collecting materials, and occasions calling for reports. An original, full-length report will be required of each student at the end of the quarter.

Prerequisite: ENG 102.

ENG 111 Composition 3 0 3

A course designed to encourage the continued growth and development of precise language usage. Students are required to write various kinds of short papers based on their personal experience. This provides practice in translating thought into language so that others may share in an experience. Grammar and standard usage are stressed as essential to precise expression.

Prerequisite: None.

ENG 112 Composition 3 0 3

A course designed to introduce the student to the genres of short story, drama, poetry, and movies. There is brief attention to the novel. Students will continue writing short papers in which they express their thoughts about these genres and deal critically with them.

Prerequisite: None. ENG 111 Helpful.

ENG 204 Oral Communication 3 0 3

A better understanding of the communication process is emphasized in this course. Outside reading is required and a variety of in-class speaking situations is provided. The listening part of communication, the non-verbal, and the influence of mass media will be carefully examined.

Prerequisite: None.

ENG 206 Business Communications 3 0 3

Practice is given in the techniques required in writing successful business communications. Various types of letters are studied with emphasis on language and purpose of each. All assigned letters must be typewritten using appropriate form. Some examination of informal business communication is included.

Prerequisite: ENG 102.

ENG 221 British Masters 3 0 3

A course designed to study in some detail the historical development of British Literature. Reading and criticism are major portions of this course. Short papers are required.

Prerequisite: ENG 111 and 112.

ENG 222 American Masters 3 0 3

A course designed to study the major American prose writers from 1800 to the 1970's. Reading and criticism are essential requirements of the course. Short papers are also required.

Prerequisite: ENG 111 and 112.

ENG 1101 Reading Improvement 5 0 0 5

A course designed to help students understand various kinds of printed material. Practice and instruction will deal with curriculum subject matter. The importance of vocabulary and main ideas will be stressed.

Prerequisite: None.

ENG 1101A Communication 2 0 2

A course designed to aid student in the comprehension of various kinds of printed material. Help is given in vocabulary building and summarizing what has been read.

ENG 1102 Communicative Skills 3 0 0 3

A course including both written and oral communications necessary in everyday activities. Practices in writing directions, letters of inquiry, orders, and bills is provided. Oral skills in telephone use, explanations, interview situations, and informal speech-making are practiced.

GEOGRAPHY

GEO 113 Physical Geography 3 0 3

A survey of the natural landscape and the forces setting upon it. The course includes an introduction to maps and their use. Three hours of lecture.

GOVERNMENT

GOV 229 National Government 3 0 3

Among the topics studied are the framing of the Constitution, the nature of federalism, federal and state powers, political parties, and the general organization and functioning of the national government.

HEALTH

HEA 111 Health 2 0 2

To promote a better understanding of pertinent health needs of both the individual and the community. Emphasis is placed on contemporary health problems of the college students.

HISTORY

HIS 111 Western Civilization 3 0 3

A survey of Western Civilization to the present; gives attention to the orgins of civilization and to relations between the West and non-Western areas of the world.

HIS 112 Western Civilization 3 0 3

A continuation of the survey of Western Civilization to the present which gives attention to the origins of civilization and to relations between the West and non-Western areas of the world.

HIS 221 American History 3 0 3

A survey of the United States history from the discovery of the New World to 1865. History 221 includes the European voyages of discovery, the European background of settlement, Colonial development, and the evolution of the American nation, including the Civil War, to 1865.

INDUSTRIAL MANAGEMENT

ISC 102 Industrial Safety 4 0 4

Management and supervisory responsibility for accident and fire prevention. Other areas covered are: accident reports, machine guards, protective equipment (personal), first-aid department, safety instruction as part of the job, use of safety committees, and provisions of the Federal Occupational Health and Safety Act. Safety and housekeeping observation tours and injury investigations are utilized as lab experiments.
Prerequisite: None.

ISC 120 Principles of Industrial Management 4 0 4

The basic managerial decisions; organizational structure including plant location, building requirements, and internal factory organization; problems of factory operation and control, planning, scheduling, routing production, purchasing, cost control. Plant problems are utilized as lab experiments.
Prerequisite: None.

ISC 202 Quality Control 2 2 3

Principles and techniques of quality control. Organization and procedures. Sampling inspections, process control and tests for significance are stressed.
Prerequisite: MAT 132.

ISC 205 First Aid 2 2 3

This course gives the basics of first-aid treatment techniques to supervisors who will be confronted with injuries likely to occur in the work area. Also covered are the temporary treatment of sudden illnesses, attacks and seizures on the job. The multi-media method of instruction developed by AT & T is utilized for this worthwhile course.
Prerequisite: None.

ISC 209 Plant Layout 4 0 4

A practical study of factory planning with emphasis on the most efficient arrangement of work areas to achieve lower manufacturing costs. Effective management of men, money, and materials in a manufacturing operation.
Prerequisite: None.

ISC 210 Job Analysis and Evaluation 3 2 4

This course is designed to familiarize the supervisor with techniques necessary to gather facts about the specific operations and responsibilities of the job, what it entails, such as mental ability, skills, and physical requirements. Job methods improvement flow process charts, and methods of evaluation are reviewed.

Prerequisite: None.

ISC 218 Plant Security 4 0 4

The organization and function of the plant security force is reviewed. Items covered include: entrance procedures, petty thievery of company-owned materials, parking lot security, use of firearms in emergency situations, disaster preparedness, and handling bomb scares. Observation of plant security personnel in the performance of their many and varied duties is utilized as the lab experience.

Prerequisite: None.

ISC 219 Fire Brigade Training 3 2 4

The organization and duties of an industrial plant fire brigade are reviewed. The role of the supervisor as a fire brigade officer is stressed. The use of fire extinguishers, reporting fires, disaster evacuation, and organization are covered in detail. Lab experiences to include use and types of ladders and hoses. Proper methods of extinguishing fires are covered.

Prerequisite: None.

ISC 231 Manufacturing Cycles 3 2 4

Purchasing and distribution costs; consumption patterns; channels of distribution; wholesaling, shipping, and warehousing; pricing; government regulation of competition.

Prerequisite: None.

MGT 131A Issues in Management 1 0 1

The course presents a variety of topics that highlight contemporary management problems and issues. Use is made of visiting speakers, group discussion and audio visual materials.

Prerequisite: None.

MGT 131B Issues in Management 2 0 2

Continuation of MGT 131A.

Prerequisite: None.

MGT 131C Issues in Management 1 0 1

Continuation of MGT 131B.

Prerequisite: None.

MGT 131D Issues in Management 1 0 1

Continuation of MGT 131C.

Prerequisite: None.

MGT 131E Issues in Management 1 0 1

Continuation of MGT 131D.

Prerequisite: None.

LAW ENFORCEMENT

PSC 101 Introduction to Law Enforcement & Criminal Justice 5 0 5

A general course designed to familiarize the student with a philosophy and history of law enforcement, including its legal limitations in a democratic republic, a survey of the primary duties and responsibilities of the various law enforcement agencies, a delineation of the basic processes of justice, an evaluation of law enforcement's current position, and an orientation relative to law enforcement as a vocation.

Prerequisite: None.

PSC 102 Basic Police Procedures I 5 0 5

An elementary course designed to orientate the student to the basic skills required of every law enforcement officer. Special attention is given to developing the proper procedures for affecting a legal arrest, making a legal and effective search, and projecting a professional demeanor in the performance of law enforcement duties.

Prerequisite: PSC 101 or permission of the instructor.

PSC 103 Basic Police Procedures II 5 0 5

The third in a series of three courses on general concepts and procedures of law enforcement. Major areas of concentration include First Aid, defensive tactics, firearms training, community relations, chemical weapons, crowd and riot control, and basic traffic enforcement and accident investigation.

Prerequisites: PSC 101; PSC 102.

PSC 110 Crime and Delinquency 5 0 5

The study primarily concerned with scientific efforts to understand crime and to understand man in relation to crime phenomena. It deals with those definitions and formulations of crime and criminals upon which an adaptation system of criminology must be based. It examines the law as the basic framework within which social deviations of a peculiar character assume their functions as criminal acts and those broad principles upon which a science of criminology must rest.

Prerequisite: None.

PSC 115 Criminal Law I 5 0 5

Designed to present a basic concepts of criminal law and create an appreciation of the rules under which one lives in our system of government.

Prerequisite: None.

PSC 116 Criminal Law II 5 0 5

A continuation of PSC 115—Criminal Law I.

PSC 118 Motor Vehicle Code 5 0 5

This is an in-depth study of Chapter 20 of the North Carolina General Statutes and the enforcement of this code by the police officer.

Prerequisite: None.

PSC 119 Patrol Procedures 5 0 5

A concentrated study of the patrol function of a police department with special emphasis on practical patrol procedures for the individual officer. Topics covered in this course include patrol and observation, crimes in progress, disorderly conduct and domestic complaints, intoxication, missing persons, liquor law violations, and mental illness.

Prerequisite: None.

PSC 201 Traffic Planning and Management 4 3 5

A study which covers the history of the traffic enforcement problem and gives an overview of the problem as it exists today. Attention will be given to the 3 E's and legislation, the organization of the traffic unit, the responsibilities to the traffic function of the various units within the law enforcement agency, enforcement tactics, evaluation of the traffic program effectiveness, and the allocation of men and materials.

Prerequisite: None.

PSC 205 Criminal Evidence 5 0 5

Instruction covers the kinds and degrees of evidence and the rules governing the admissibility of evidence in court.

PSC 206 Report Writing and Records 3 3 4

This course introduces the student to the records keeping process for law enforcement agencies, the proper content and composition of various reports required of law enforcement officers.

Prerequisite: None.

PSC 210 Criminal Investigation 5 3 6

This course introduces the student to fundamentals of investigation; crime scene search; recording, collection and preservation of evidence; sources of information; interview and interrogation; case preparation and court presentation; and the investigation of specific offenses such as arson, narcotics, sex, larceny, burglary, robbery and homicide.

Prerequisite: Admission to the program and permission of the instructor-coordinator.

PSC 211 Introduction to Criminalistics 4 3 5

Continuation of the study of criminal investigation including a general survey of the methods and techniques used in modern scientific investigation of crime, with emphasis upon the practical use of these methods by the students. Laboratory techniques will be demonstrated and the student will participate in actual use of the scientific equipment.

Prerequisite: Admission to the program; permission of instructor-coordinator; satisfactory completion of PSC 210.

PSC 215 Fingerprints 3 4 5

This course covers a study of the search, classifying, and filing of fingerprints. Also, the developing of latent fingerprints and presenting fingerprint evidence in court will be covered.

PSC 220 Police Organization & Administration 5 0 5

Introduction to principles of organization and administration, discussion of the service functions; e.g., personnel management, police management, training, communications, records, property maintenance and miscellaneous services.

Prerequisite: None.

PSC 225 Criminal Procedure 5 0 5

This course is designed to provide the student with a review of court systems; procedures from incident to final disposition; principles of constitutional, federal, state and civil laws as they apply to and affect law enforcement.

Prerequisites: PSC 205, PSC 210.

MASONRY

MAS 1101 Bricklaying 6 21 13

The history of the bricklaying industry, clay and shell brick, mortar, laying foundations, laying bricks to a line, bonding, tools and their uses. Laboratory work will provide training in the basic manipulative skills. Students will pursue the selecting of proper mortars, layout and construction of various building elements such as foundations, walls, chimneys, arches, and cavity walls. The proper use of bonds, expansion strips, wall ties and caulking methods are stressed.

MAS 1102 Bricklaying 6 21 13

Layout and erection of reinforced grouted brick masonry lintels, fireplaces, glazed tile, panels, decorative stone, granite, marble, adhesive terra cotta and modular masonry construction theory and techniques.

Prerequisite: MAS 1101.

MAS 1113 Masonry Estimating 4 3 5

This is a course in quantity “take Off” from prints of the more common

type jobs for masons. Figuring the quantities of materials needed and cost of building various components and pictures.
Prerequisite: DFT 1110.

MATHEMATICS

MAT 100A Fundamentals of Technical Mathematics 3 0 3

This course is especially designed for students in the Veterinary Medical Technology program; major emphasis is placed on practical application including the following: addition; subtraction; multiplication; division; percentages; ratio and proportions; metric and British systems of measurement; mixtures and solutions; dosage calculations; and elementary equations in algebra.
Prerequisite: None.

MAT 101 Technical Mathematics 5 3 6

A study of the concept of numbers, natural numbers, whole numbers, integers, rational and irrational numbers, addition, subtraction, multiplication, division, factors and primes, common and decimal fractions, rounding, percent, exponents and radicals, complex numbers; algebraic concepts, variables, polynomials, products and factors, linear equations, functions, graphs, logarithms, systems of linear equations, algebraic operations; and geometry. Application to practical situations is stressed.
Prerequisites: None.

MAT 102 Technical Mathematics 5 3 6

A continuation of MAT 101. Advanced algebraic and trigonometric topics including quadratic equations, the conics, trigonometric functions and identities, solutions of right and oblique triangles, radian measure, sine wave analysis, vectors, and polar coordinates are studied in depth. Application to practical problems is stressed.
Prerequisites: MAT 101.

MAT 103 Technical Mathematics 5 3 6

The fundamental concepts of analytical geometry, and differential and integral calculus are introduced. Topics included are graphing techniques, geometric and algebraic interpretation of the derivative, differentials, rate of change, the integral and basic integration techniques. Application to practical problems is stressed.
Prerequisites: MAT 102.

MAT 109 Mathematics for Criminal Justice 5 0 5

This course is designed to give the Law Enforcement student a working knowledge of mathematics. The course includes such topics as operations on integers, common fractions, and decimal fractions; exponents and radicals; basic algebra; basic geometry; and measurement both in the English and Metric systems of measure. Whenever possible, application to the Law Enforcement field is stressed.
Prerequisites: None.

MAT 110 Business Mathematics 5 0 5

This course stresses the fundamental operations and their application to business problems. Topics covered include payrolls, price making, interest and discount, commission, taxes, and pertinent uses of mathematics in the field of business.
Prerequisite: None.

MAT 112 The Metric System 5 0 5

This course is an introduction to the International Metric System of measurements. The course emphasizes "thinking metric" and is designed around manipulative experiences that help the student to get a "feel" for the metric system. The various advantages of the metric system are stressed. Topics included are metric units, symbols and the relationship of units which

are used in the measurement of length, area, mass, volume and temperature. The study of metric prefixes, as they relate to the decimal system, and the conversion of units between the Metric and English system are also included.
Prerequisites: None.

MAT 130 Math for Management I 4 0 4

A practical study of basic mathematical skills: addition, subtraction, multiplication, and division. Topics include whole numbers, common fractions, decimal fractions, measurement, percentage and averages, finance, and graphs and statistics. An introduction to such algebraic topics as symbols, equations, and ratio and proportion is also included. Practice in depth.
Prerequisites: None.

MAT 131 Math for Management II 4 0 4

A continuation of MAT 130. Emphasis is placed on problem solving as it applies to actual and simulated management and industrial problems involving mathematics. Topics include a continuation of algebra: exponents; radicals and formulas; fundamentals of applied geometry; fundamentals of applied trigonometry; and a study of length, volume and capacity, and weight in the metric system.
Prerequisites: MAT 130.

MAT 132 Statistics 4 0 4

This course emphasizes statistical inference and progresses to decision-making theory releted to the field of Industrial Management through topics that include mean, median, mode, standard deviation, elementary probability, hypothesis testing, analysis of variance, and correlation and regression.
Prerequisites: MAT 131.

MAT 150 Introductory Algebra 3 0 3

This course is an introduction to algebra which progresses from the rules of arithmetic through the laws of algebra. Topics included are the real numbers, operations with signed numbers, operations with algebraic expressions, special products and factors, operations on algebraic fractions, first degree equations, systems of equations, functions, exponents and radicals.
Prerequisites: None.

MAT 160 Elementary Statistics 3 0 3

This course emphasizes statistical inference and progresses to decision-making theory through topics that include mean, median, mode, standard deviation, elementary probability, hypothesis testing, analysis of variance, and correlation and regression.
Prerequisites: None.

MAT 201 Technical Mathematics 5 3 6

An application of the calculus topics of MAT 103 to electonic theory. More advanced concepts of differentiation and integration are considered. Included are graphic differentiation and integration of electonic functions; graphs; derivatives and integrals of the trigonometric and inverse trigonometric functions, logarithmic and exponential functions, and the hyperbolic functions; partial derivatives; integration techniques; double integrals; and infinite series.
Prerequisites: MAT 103.

MAT 1101 Fundamentals of Mathematics 5 0 0 5

Analysis of basic operations; addition, subtraction, multiplication, and division; whole numbers, common fractions, decimals; measurement of lengths, angles, surfaces, and volumes; plane and solid geometric figures used in industry; examination of the metric system; percentages and averages; ratio and proportion; determination of pulley and gear speed; tapers; squares and square roots. Practice in depth.
Prerequisites: None.

MAT 1101C Fundamentals of Mathematics 7 0 0 7

Practical numbers theory, analysis of basic operations: addition, subtraction, multiplication and division. Fractions, decimals, percentages, ratio and proportion, plane and solid geometric figures used in industry; measurement of surfaces and volumes. Practical problems dealing with volumes, weights, ratios, and basic estimating practices for building materials.

MAT 1103 Geometry 5 0 0 5

A study of fundamental geometric properties and definitions; plane and solid geometric figures; geometric construction of lines, angles and plane figures; and trigonometric relations. Emphasis on application to the machine shop. Practice in depth.

Prerequisites: MAT 1123.

MAT 1115 Electrical Mathematics 5 0 0 5

A study of fundamental concepts of algebra; use of letters and signs, grouping, factoring; solution of first-order equations, ratio and proportion; exponents and radicals; and electrical formulas. Emphasis on application to the industrial maintenance field. Practice in depth.

Prerequisites: MAT 1101.

MAT 1116 Electrical Mathematics 5 0 0 5

In-depth treatment to give a working knowledge of the powers of 10, Ohm's law for series and parallel circuits, quadratic equations, Kirchoff's laws, trigonometric functions, plane vectors, alternating currents, vector algebra and logarithms.

Prerequisite: MAT 1115.

MAT 1123 Machinist Mathematics 5 0 0 5

A study of fundamental concepts of algebra; use of letters and signs, grouping, factoring; solution of first-order equations, ratio and proportion; exponents and radicals; and machinist formulas. Emphasis on application to the machine shop in problems involving gear ratio, lead screw, indexing, and cutter speeds. Practice in depth.

Prerequisites: MAT 1101.

MECHANICAL

MEC 101 Machine Processes 2 4 2

An introductory course designed to acquaint the student with basic hand tools, safety procedures and machine processes of our modern industry. It will include a study of measuring instruments, characteristics of metals and cutting tools. The student will become familar with the lathe family of machine tools by performing selected operations such as turning, facing, threading, drilling, boring, and reaming.

Prerequisite: None.

MEC 205 Strength of Materials 3 2 4

Study of principles and analysis of stresses which occur within machine and structure elements subjected to various static loads. Analyses of these stresses are made as applied to thin-walled cylinders and spheres, riveted and welded joints, beams, columns, and machine components. Instruction includes concepts of centroids, center of gravity, and moments of inertia.

Prerequisites: PHY 106, MAT 103.

MEC 208 Machine Design I 3 3 4

A study of factors affecting the design of machines. Applications of the principles of mechanics, properties of materials, manufacturing processes and economics of production fundamental to the design of machine components. Empirical and theoretical equations, practical considerations, and design procedures are included.

Prerequisite: MEC 205.

MEC 209 Machine Design II 3 3 4

Emphasis on the design of machines and/or their sub-assemblies. Selection of machine components through the use of manufacturers catalogs, standards, and handbooks. Stress analysis and design of physical dimensions for advanced machine components covered.

Prerequisite: MEC 208.

MEC 210 Physical Metallurgy 3 3 4

Introductory course in metallurgy—a basic study of the properties of metals and alloys. Analysis of the structure of metals and alloys, atomic structure, nuclear structure, and nuclear reactions. Solid (crystalline) structures, methods of designating crystal planes; liquid and vapor phases; phase diagrams; and alloy systems.

Prerequisite: PHY 101.

MEC 213 Production Planning 4 0 4

Day-to-day plant forecasting, product planning and control, scheduling, dispatching, routing and inventory control. Actual layouts are utilized for planning and control. Orientation visits to selected industries are part of the lab experience.

Prerequisite: None.

MEC 1101 Machine Tool & Practice 3 0 12 7

An introduction to the basic machine tool operation; namely: turning, sawing, drilling, grinding, and milling; identification, care, and use of precision hand and measuring tools; layout procedures and processes of the engine lathe, drill press, grinding, power saw, contour sawing, and the milling machine will be covered both in theory and practice.

Prerequisite: None.

MEC 1101A Machine Tool Theory & Practice 3 0 9 6

An introductory course designed to acquaint the student with basic hand tools and safety procedures. The student will learn basic machine tool operations: namely; turning, sawing, drilling, grinding, and milling. Layout work and precision measuring will be introduced.

Prerequisite: None.

MEC 1102 Machine Tool Theory and Practice II 3 0 12 7

Advanced operations in layout tools and procedures, power sawing, drill press, surface grinder, milling machine, and shaper. The student will be introduced to the basic operations on the cylindrical grinder and will select projects encompassing all of the operations, tools, and procedures thus far used and those to be stressed throughout the course.

Prerequisite: MEC 1101.

MEC 1103 Machine Tool Theory and Practice III 3 0 12 7

Advanced work on the engine lathe, turning, boring, and threading machines, grinding, milling machine and shaper. Introduction to basic indexing and terminology with additional processes on calculating, cutting, and measuring of spur, helical, and worm gears and wheels. The trainee will use precision tools and measuring instruments such as vernier height gauges, protractors, comparators, etc. Basic exercises will be given on the turret lathe and on the tool and cutter grinder.

Prerequisite: MEC 1102.

MEC 1104 Machine Tool Theory and Practice IV 2 0 6 4

Development of class projects using previously learned procedures in planning, blueprint reading and machine operations.

Additional processes on the tool and cutter grinder, the sine plate, and the radius tangent dresser. The cutting of acme and pipe threads on the lathe will be implemented. Observance of good safety procedures will be stressed.

Prerequisite: MEC 1103.

MEC 1112 Machine Shop 2 0 3 3

An introduction to the machine shop as related to the automotive trade, dealing primarily with the identification, care, and use of basic machine shop tools and off-hand grinding of drill bits and automotive shoptools. Elementary layout and practice jobs using the lathe, drill press, and the milling machine will be introduced.

Prerequisite: None.

MEC 1117 Treatment of Metals 2 0 6 4

A study of the properties of ferrous and nonferrous metals, alloys, castings, and heat treating as applied to the maintenance mechanics needs.

Prerequisite: None.

MEC 1139 Basic Hydraulics 2 0 6 4

The study of hydraulic systems as applied to maintenance and repair of such devices. Mock-ups will be built of pneumatic and hydraulic systems including the different types of valves and controls. Measuring and testing equipment used in pneumatic and hydraulic systems will be studied. The student will learn how to detect leaks, repair, and place back in operation the common pneumatic and hydraulic control mechanisms.

Prerequisites: PHY 1101, EMS 1102.

MEC 1151 Tool Making: Jigs and Fixtures I 3 0 9 6

This course is designed to acquaint the student with the art of tool making and to develop skills to perform this work; to teach the student the principles of jigs and fixtures, their application to industry and the basic fabrication methods; to develop self-confidence in his ability to do high precision work, making him aware that the accuracy of perhaps thousands of parts depends on his skill and accuracy.

Prerequisite: None.

MEC 1151A Tool Making: Jigs and Fixtures II 2 0 9 5

The course is designed to teach the basic principles of Jigs and Fixtures and their application to industry; to develop self-confidence in his ability to do high precision work, making him aware that the accuracy of perhaps thousands of parts depends on his skill and accuracy.

Prerequisite: MEC 1151.

MEC 1152 Tool Making: Gages and Special Tools 2 0 8 4

In this course a special emphasis will be made on special gages, measuring devices, and special hand tools. The student will also learn the basic uses and application of carbide cutting tools in industry.

Prerequisite: MEC 1151A.

MEC 1154 Die Making I: Introduction 2 0 9 5

This course is first in a series of diemaking courses. The student will construct single stage shearing, punching and forming dies. The importance of alignment between punch and die will be emphasized. The process of determining the amount of cutting clearance for different sizes and types of materials will be taught.

Prerequisite: MEC 1151.

MEC 1155 Die Making II 2 0 12 6

This is the second in a series of diemaking courses. The student will study the theory of progressive dies. The student will be given instructions in the locations of pilots, grinding operations and blank development. A progressive die will be built involving two or more stages. The student will also be taught the fundamentals of punch press set up. The importance of quality workmanship and safety will be stressed.

Prerequisite: MEC 1154.

MEC 1156 Die Making III 3 0 9 6

Further theory and design of progressive dies will be studied. The student will be given instructions in stock material utilization and strip layouts. Different types of dies will be discussed such as compound dies, swaging dies and forming dies. Knock outs and automatic feeders will be discussed. Alterations and rebuilding of progressive dies will be carried out.

Prerequisite: MEC 1155.

MEC 1158 Introduction to Plastic Molding 2 0 8 4

Due to the expanding use of plastics, the need for mold making has greatly increased. This course is designed to acquaint the student with the design and construction of simple molds, differences between molds and dies, surface finishes, closures, gates and runners, and ejection methods. Methods of cooling will also be discussed and the student will build a simple mold to prescribed accuracy and finish.

Prerequisite: None.

MEC 1159 Plastic Mold Construction 3 0 9 6

This course is designed to give the student a further study in the construction and design of more complex molds. Methods of machining molds, heating, cooling, venting, polishing and heat treating procedures will be discussed.

Prerequisite: MEC 1158.

MEC 1161 Numerical Control 1 0 4 2

Operation of machine tools by means of instructions expressed in numerical control on paper tape. Punching of paper tape to record numerical code. Writing proper instructions for punching tape to guide the machine through the most complicated operations to extremely close tolerances.

Prerequisite: None.

MILITARY SCIENCE

MLS 101 Military Science—U. S. Defense Establishment 1 0 1

Cadets are familiarized with their military service obligations and study the principles of organization as related to basic military units. Instruction is also provided on the nine principles of war. Concurrent training emphasizes proper wearing of the military uniform, military courtesy and officer benefits, responsibilities and obligations.

MLS 102 Military Science 1 0 1

The fundamentals of basic offensive and defensive tactics are studied with emphasis on leadership in small military units and techniques of fire. Cadets are provided concurrent training in controlling and moving massed personnel and military courtesy.

Prerequisite: MLS 101.

PARALEGAL

LEX 103 Techniques of Investigation I 3 3 4

Investigatory techniques for the law office. This course provides a general background for several specialized courses. The course includes interviewing witnesses, obtaining medical and other official records, photography, sketching and diagraming damage evaluation. Damage evaluation includes property damage, personal injury, loss of income and real property evaluation.

The student will be taught the relationship between investigation, office practice, and trial, including preparation of the file for trial.
office practice and trial, including preparation of the file for trial.
Prerequisite: None.

LEX 104 Techniques of Investigation II 3 3 4
A continuation of LEX 103.
Prerequisite: LEX 103.

LEX 115 Commercial Law I 5 0 5
A survey of the basic principles of criminal law and tort law as related to business with an intensive coverage of contract law and bailments.
Prerequisite: None.

LEX 116 Commercial Law II 5 0 5
An introduction to the Uniform Commercial Code including secured transactions, sales and commercial paper.
Prerequisite: LEX 115.

LEX 117 Advanced Commercial Law 5 0 5
The study of the sole proprietorship, partnership, and corporate forms of doing business. Emphasis is placed upon the formalities of formation and operation, on the various liabilities and advantages of each form, and on the role of the paralegal in gathering data and processing documents.
Prerequisite: LEX 116.

LEX 118 Bankruptcy and Collection Procedures 2 1 2
The study of collection procedures including collection letters, drafting and filing of complaints, default judgments, executions, supplemental proceedings, liens and judical sales, and receiverships. Bankruptcy will be studied from the standpoint of involuntary and voluntary bankruptcy and the wage-earner plan with emphasis on the preparation of the proper forms to be filed for each.
Prerequisite: None.

LEX 132 Law Library Research and Management 6 3 7
A study of legal research techniques and tools, including the writing of legal memorandums and briefs.
Prerequisite: None.

LEX 201 N. C. Legal Systems I 5 0 5
A survey of the American legal system introducing the constitutional guaranty of due process, legal terminology, the judicial system, limitations in judical relief, judicial decision-making, judicial remedies, civil and criminal procedure, legislation administrative process and a brief study of the federal court system.
Prerequisite: None.

LEX 202 N. C. Legal Systems II 3 0 3
Study of the North Carolina court system with special attention on the functions of the Clerk of Superior Court and the N. C. rules of criminal and civil procedure.
Prerequisite: LEX 201.

LEX 204 Law Office Management 2 3 3
This course includes the study of organization of the law office, office forms and legal forms, filing equipment and systems, law office equipment, accounting systems, accounting for lawyer's time, fees and billing, client relations, office operating procedures, lawyer's professional liability insurance, and other insurance programs for lawyers.
Prerequisite: None.

LEX 208 Probate Management I 3 0 3

This course teaches interview techniques and gathering of data for preparation of wills and estate plans.

Preparation of inventories, accounts, tax returns and other documents for administration of estate. Study of procedures for administration.

Prerequisite: None.

LEX 209 Probate Management II 3 0 3

A continuation of LEX 208.

Prerequisite: LEX 208.

LEX 210 Probate Management III 3 0 3

A continuation of LEX 208 and 209.

Prerequisite: LEX 208 and 209.

LEX 215 The Paraprofessional in the Legal Profession 3 3 4

This course is designed to teach the ethical and professional duties and responsibilities of the paralegal. Limitations in the various paralegal assignments will be emphasized.

Prerequisite: None.

LEX 222 Tax Accounting II 2 3 3

A continuation of Tax Accounting I. Includes gift, estate and inheritance tax returns.

Prerequisite: BUS 229.

LEX 223 Investigation of Criminal Cases 2 3 3

This course is designed to give the legal setting of criminal cases and the application of general investigative techniques to criminal cases.

Prerequisites: LEX 103.

LEX 224 Investigation of Civil Claims 5 3 6

Legal setting of civil claims and the application of general investigative techniques to civil claims, emphasizing discovery techniques.

Prerequisites: LEX 103 and 104.

LEX 225 Real Property I 4 3 5

The mechanics of conveyances and encumbrances of real property including preparation of simple instruments, title insurance and preparation for closing. Title examination procedures and preparation of title abstracts for the attorney is emphasized. Also included is a study of real property condemnation and investigation procedures.

Prerequisite: None.

LEX 226 Real Property II 6 0 6

A continuation of Real Property I, LEX 225.

Prerequisite: LEX 225.

LEX 227 Investigation of Industrial Claims 2 3 3

The legal setting of industrial claims including workmen's compensation and other applicable law and application of general investigative techniques.

Prerequisite: LEX 103 and 104.

LEX 233 Anatomy and Medical Terminology 5 0 5

This course is designed to cover terminology as applied to the whole man, physical and mental.

Prerequisite: None.

LEX 235 Law and the Family 3 0 3

The legal obligations in a marriage contract, its rights and privileges upon the contracting parties; defenses to divorce actions; the statutory grounds for divorce; elements of a legal separation by court order or by mutual consent will be studied. Drafting of pleadings and contractual agreements, study of family problems, juvenile courts, legal proceedings in adoption and custody cases will be studied.

Prerequisite: None.

PHILOSOPHY

PHI 121 Introduction to Philosophy 3 0 3

An examination of selected problems and the relation of philosophy to other disciplines, with particular attention to method.

Prerequisite: None.

PED Physical Education 0 2 1

Two semesters of physical education are required of all students. Instruction ia offered in history, care of equipment and facilities, fundamental skills, and elementary or advanced strategy in each activity. Two activities must be taken during a semester. Each activity carries ½ semester hour credit; therefore, two activities carry 1 semester hour credit. The following activities are planned as offerings at CCTI: PED 055—Beginning Tennis; PED 071—Beginning Bowling; PED 013—Beginning Golf; and PED 072—Intermediate Bowling.

PHYSICS

PHY 101 Physics: Properties of Matter 3 2 4

A fundamental course covering several basic principles of physics. The divisions included are solids and their characteristics, liquids at rest and in motion, gas laws and applications. An introduction to basic systems of measurement is included. Laboratory experiments and specialized problems dealing with these topics are part of this course.

Prerequisite: MAT 102.

PHY 102 Physics: Mechanics 3 2 4

Major areas covered in this course are dynamics, kinematics of velocity and motion, and conservation laws. Instruction includes such topics as statics, forces, properties of vectors, work, power, energy, friction and circular motion. Units of measurement and their applications are a vital part of this course. A practical approach is used in teaching students the use of essential mathematical formulas.

Prerequisite: MAT 103.

PHY 104 Physics, Light, and Sound 3 2 4

A survey of the concepts involving wave motion leads to a study of sound, its generation, transmission and detection. The principles of wave motion also serve as an introduction to a study of light, illumination and the principles involved in optical instruments. Application is stressed throughout.

Prerequisite: MAT 102.

PHY 106 Physics: Statics 5 0 5

Concepts and principles of statics and equilibrium. Practical applications of concurrent and non-concurrent force systems in coplanar and non-coplanar situations. Instruction includes a study of friction.

Prerequisites: MAT 103, PHY 102.

PHY 111 Introductory Physics 3 3 4

Application of the basic principles of physics to observed phenomena. A minimum of mathematics is used in developing concepts. The study includes laboratory and an introduction to astronomy. Intended for non-science majors.

Prerequisite: None.

PHY 1101 Applied Science 3 2 0 4

An introduction to physical principles and their application in industry.

Topics in this course include measurement; properties of solids, liquids, and gases; basic electrical principles.

Prerequisite: None.

PHY 1102 Applied Science 3 2 0 4

The second in a series of two courses of applied physical principles. Topics introduced in this course are heat and thermometry, and principles of force, motion, work, energy, and power.

Prerequisite: PHY 1101.

POLITICAL SCIENCE

POL 102 Government—National 5 0 5

English and colonial background, the articles of confederation and the framing of the federal constitution. The nature of the federal union; state rights; federal powers, political parties. The general organization and functioning of the national government.

Prerequisite: None.

POL 103 Government—State and Local 5 0 5

A study of state and local government, state-federal interrelationships, the functions and prerogatives of the branches. Problems of administration, legal procedures, law enforcement, police power, taxation, revenues, and appropriations. Special attention will be given to North Carolina.

Prerequisite: None.

POWER MECHANICS

PME 1103 Diesel Engine Servicing 2 0 9 5

A study and practice in the servicing and repair of diesel engines and components. A study of fuels and special handling precautions, diesel engine principles, design, construction, reboring and installing of cylinder sleeves, and the operation of auxiliary engine controls.

Prerequisite: PME 1126, AUT 1105, AUT 1106, AUT 1102A.

PME 1106 Diesel Fuel Systems 2 0 9 5

A study of diesel fuels and the fundamentals of fuel injection. The study covers the diagnosis of problems encountered with fuel pumps, speed controls, injectors and their replacement.

Prerequisite: PME 1126, AUT 1105, AUT 1101, AUT 1102B.

PME 1126 Small Engine Repair 2 0 3 3

The small engine repair is offered to train people in the maintenance and overhaul of two and four cycle engines. Enrollees are taught to repair and replace defective parts of the small engines used on lawn mowers, garden tractors, rototillers, and similar machines. Instruction in safety is one of the major responsibilities of the course.

Prerequisite: None.

PME 1010 Introduction to Motorcycles 5 0 9 7

This course is designed so that the students may learn the proper nomenclature of the parts to and components of the motorcycle. The theory and differences of operation of the two and four cycle engines will be covered. Other areas of study will be motorcycle safety, laws, rules and regulations, and preventive maintenance.

Prerequisite: None.

PME 1011 Motorcycle Electrical Systems I 3 0 3 4

This course emphasizes the motorcycle charging system. Electrical wiring diagram reading as well as the principles and workings of batteries, generators, rectifiers, voltage regulators, diodes, zeiner diodes, and thyristors will be covered.

Prerequisite: PME 1010 or consent of instructor.

PME 1012 Motorcycle Electrical Systems II 3 0 5 5

This course is designed to teach the student the basic types of ignition systems, their components and how they function. The standard points-coil ignition will be covered as well as the new capacitor discharge ignition systems.

Prerequisite: PME 1011 or consent of instructor.

PME 1013 Motorcycle Fuel Systems 5 0 5 7

A study will be made of the various types of fuels used in internal combustion engines. The theory and principles of operation of carburetion and fuel injection will also be studied. Instruction will include servicing, disassembly, inspection, reassembly, and adjustments of the components of the fuel systems.

Prerequisite: None.

PME 1015 Motorcycle Engines 4 0 8 6

The study of the construction and operation of components of the internal combustion engine used in modern motorcycles with emphasis on both two and four cycle engines. The basic techniques used in rebuilding and maintaining these engines will be covered in considerable detail.

Prerequisite: None.

PME 1017 Motorcycle Chassis 3 0 3 4

This course will include the theory and demonstration in chassis adjustments, the types and uses of frames and suspensions, proper and safe use of tools and equipment used in servicing and maintaining motorcycle chassis.

Prerequisite: PME 1010 or consent of instructor.

PME 1018 Special Problems—Motorcycles 0 0 12 4

This course will include projects or problems of special interest to the students. This is an opportunity for the student to strengthen skills and to further specialize in an area of his choice.

Prerequisite: PME 1010, 1011, 1012, 1015, or consent of instructor.

PME 1019 Troubleshooting—Motorcycles 0 0 9 3

Emphasis will be placed on the shop procedures necessary for swift and accurate diagnosis of problems in the electrical, mechanical, and fuel systems of motorcycles. All shop equipment previously studied will be utilized. A full range of experiences in testing, adjusting, repairing, and replacing will be utilized. Major emphasis will be placed upon developing a logical sequence of diagnostic procedures utilizing skills developed in prior courses.

Prerequisite: PME 1010, 1011, 1012, 1015 or consent of instructor.

PME 1020 Dynamometer Tuning 2 0 4 3

This course is designed to provide learning experiences in the operation of and the need for the motorcycle dynamometer. The student will learn how to road test, troubleshoot, and tune a motorcycle by using this piece of equipment. This course will be closely related to the troubleshooting course. The student will be reviewed on the use of all previously studied equipment that pertains to troubleshooting.

Prerequisite: PME 1010, 1011, 1012, 1015 or consent of instructor.

PRACTICAL NURSE EDUCATION

PNE 1101 Fundamentals of Practical Nursing 6 4 1 8

Interpretation of the role of the practical nurse student and basic knowledge to be used in performing nursing. Philosophy and objectives of practical nursing in the technical institute setting using adequate study methods and materials. Beginning knowledge of interpersonal relationships in nursing. Principles basic to nursing practice. Body mechanics for nurse and patient. Sterilization techniques and disinfection methods. Principles of medical and surgical asepsis. Uses of hospital equipment. Techniques in daily hygienic patient care. Spoken and written communications for nurses. Laboratory practice in simple skills and hygienic care of patients.

Prerequisite: None.

PNE 1102 Nutrition (Basic) 2 0 0 2

Designed to give knowledge of the basic principles of nutrition. Functions and sources of nutrients. The mechanics of digestion, absorption, and metabolism of nutrients. Principles of meal planning, nutritional requirements for all age groups modified by religious, cultural, social, and psychological aspects.

Prerequisite: None.

PNE 1103 Anatomy and Physiology 8 0 0 8

A thorough study of the general plan of the body and the nine systems: nervous, endocrine, skeletal, muscular, circulatory, digestive, respiratory, urinary, male and female reproductive systems. Designed for understanding of how the body controls its functions, how the body stands erect and moves, how the body distributes food and oxygen and removes waste, how the body provides for reproduction.

Prerequisite: None.

PNE 1104 Growth and Development 2 0 0 2

Designed to show the individual as a member of a family and community. Normal development from birth to old age. Influences of the environment. Physical, mental, and personality changes with age. Community responsibilities and resources for young and old. Guest speakers from community agencies will be utilized.

Prerequisite: None.

PNE 1105 Medical-Surgical I: Introduction 6 0 0 6

Planned to give beginning understanding of the nursing care of and common problems caused by illness. Emotional reactions caused by illness and hospitalization. Nurse-patient relationships. Fundamental processes of illness and nursing care. Diagnostic tests. The nursing needs of the cancer patient and other selected medical patients. Nursing care of the surgical patient. Introduction to rehabilitation. Modification of diet for disease conditions.

Prerequisite: None.

PNE 1106 Medical-Surgical II 5 0 0 5

Designed to develop knowledge of common disorders of body systems, the nursing care, socio-psychological implications. Includes disorders of the cardiovascular, gastro-intestinal, respiratory and integumentary systems. Disorders of the eye, ear, nose, and throat.

Prerequisite: PNE 1105.

PNE 1107 Medical-Surgical III 6 0 0 6

Continuation of study of disorders of the body systems. Includes musculoskeletal, endocrine, and nervous systems. Urological disorders and nursing care. First aid. Advanced nursing ethics, medico-legal aspects of practical nursing, organizations for the graduate practical nurse.

Prerequisite: PNE 1106.

PNE 1108 Pharmacology I 3 2 0 4

Review of mathematics as used by nurses. Development of the skill of giving oral medications. Knowledge of drug sources, methods of preparation and storage. The classification of drugs by use and by drug content.

Prerequisite: None.

PNE 1109 Pharmacology II 2 0 0 2

Development of a thorough knowledge of the equipment and sterile techniques used in preparing and giving injections. Administration of drugs by inhalation or topical application. Insulin therapy. Home drug preparation and storage.

Prerequisite: PNE 1108.

PNE 1110 Pediatrics I 2 0 0 2

Understanding of the scope and aims of modern nursing of children. Differences in the nursing care of children from adults. Methods of answering the needs of the hospitalized child and his parents. Common disorders of children and their implications for nursing care.

Prerequisite: PNE 1104.

PNE 1111 Pediatrics II 2 0 0 2

A continuation in more depth of Pediatrics I.

Prerequisite: PNE 1110.

PNE 1112 Maternity Nursing 4 0 0 4

Presentation of modern aspects of maternity nursing with emphasis on normal obstetrics. Detailed presentation of material on nursing care during antepartum, labor, and postpartum periods. Care of the newborn baby and methods of teaching new mothers. Emphasis is to provide better and safer care for the expectant mother and her baby.

Prerequisites: PNE 1101 and PNE 1103.

PNE 1113 Clinical Experience I 0 0 24 8

Beginning experience in a general hospital under supervision of clinical teachers. Opportunities for practicing skills learned in laboratory practice. Emphasis on basic hygienic care for ambulatory and bed patients. Practice in charting nurses' notes and making observations with the use of testing materials and instruments. Beginning opportunities to develop concepts needed for caring for patients as a part of a nursing team.

Prerequisite: PNE 1101.

PNE 1114 Clinical Experience II 0 0 24 8

Further experience in the practice of nursing skills. Continued experiences in the basic areas of medical-surgical nursing, pediatric nursing or obstetrical nursing. Experience in giving oral and topical medications under the direction of clinical teacher. Emphasis on observation of signs and symptoms and taking part in making nursing judgments in team conference. Isolation techniques and practice and oxygen therapy.

Prerequisite: PNE 1113.

PNE 1115 Clinical Experience III 0 0 24 8

The student learns her role as an assistant to the professional nurse in caring for the more seriously ill patient. Continued experience in the basic areas of medical-surgical nursing, pediatric nursing or obstetrical nursing under supervision of clinical teachers. Practice in giving injections under the direct supervision of a clinical teacher. Experience in more complicated nursing treatments. Organization for patient care for groups of patients.

Prerequisite: PNE 1114.

PNE 1116 Disaster Nursing 2 0 0 2

Students learn about the effects of disaster on a community level and the role of the practical nurse and others in the disaster.

Prerequisite: None.

PSYCHOLOGY

PSY 102 General Psychology 5 0 5

A study of the various fields of psychology; the developmental process; motivation: emotion: frustration and adjustment: mental health: attention and perception; problems of group living. Attention is given to applications of these topics to problems of study, self-understanding and adjustment to the demands of society.

Prerequisite: None.

PSY 103 Adolescent Psychology 5 0 5

A study of the nature and source of the problems of adolescents in western culture; physical, emotional, social, intellectual and personality development of adolescents.

Prerequisite: None.

PSY 125 Art of Motivating People 4 0 4

The importance of motivation to meet production needs is stressed. Feelings and emotions are considered with particular reference to on-the-job problems. Other topics investigated are employee selection, job satisfaction, and industrial conflicts.

Prerequisite: None.

PSY 126 Science of Human Relations 4 0 4

This course is concerned with the fundamentals of human relations. Items stressed include: the importance of getting the facts, basis for decisions, and taking preventive action. Application of the 4-step problem solving methods to a plant situation is utilized as the lab experience.

Prerequisite: None.

PSY 133 Creative Thinking 4 0 4

This course is designed to improve attitudes and abilities of supervisors to fully utilize creative potential, to develop a greater curiosity in problem solving, and to gain open-mindedness towards the ideas of others.

Prerequisite: None.

PSY 206 Applied Psychology 5 0 5

A study of the principles of psychology that will be of assistance in the understanding of inter-personal relations on the job. Motivation, feelings, and emotions are considered with particular reference to on-the-job problems. Other topics investigated are: employee selection, supervision, job satisfaction, and industrial conflicts. Attention is also given to personal and group dynamics so that the student may learn to apply the principles of mental hygiene to his adjustment problems as a worker and a member of the general community.

Prerequisite: None.

PSY 222 General Psychology 3 0 3

A study of the various fields of psychology; the developmental process; motivation; emotion; frustration and adjustment; mental health; attention and perception; problems in group living. Attention is given to application of these topics to problems to study, self-understanding, and adjustment to the demands of society.

Prerequisite: None.

PSY 229 Abnormal Psychology 5 0 5

This is a study of the symptoms, contributing factors, treatment and outcomes of the mentally ill and mentally defective as well as maladjusted, anti-social persons. Classifications and nomenclature of psychoneurosis, psychoses, and other illnesses are discussed.

Prerequisite: None.

PSY 1101 Human Relations 3 0 0 3

A study of basic principles of human behavior. The problems of the individual are studied in relation to society, group membership, and relationships within the work situation.

Prerequisite: None.

PSY 1101A Human Relations 2 0 2

A study of basic principles of human behavior as related to nursing. The problems of the individual are studied in relation to patient-nurse communication and relations within the work situation.

PSY 1101B Human Relations 2 0 2

A continuation of PSY 1101A with special emphasis on professional ethics.
Prerequite: PSY 1101A

RADIO-TV BROADCASTING

RTV 101 Introduction to Broadcasting 5 2 6

An overview of the entire field of radio broadcasting, including the history of the origin and development of the broadcasting industry in the U. S., the various dimensions of broadcasting, station organization and procedures, and factors influencing broadcasting from social, political, and economic areas. Also the student will be taught the correct use of basic broadcast equipment.
Prerequisite: None.

RTV 102 Newsgathering-Writing-Sports 3 4 5

An introduction to the field of broadcast journalism with special emphasis placed upon gathering, writing, editing and processing of news and specialty programs, including the documentary.
Prerequisite: None.

RTV 103 Broadcast Announcing and Performance I 3 4 5

An introduction to the problems the radio and television announcer-performer faces in the two media, with emphasis in the analysis, interpretation, and communications of a variety of types of announcing-performance projects. The course is further designed to give the student background and experience in relating his speech, personality, character, and temperament to broadcast speech communication and to familiarize the student with basic radio and television studio equipment and broadcast procedures.
Prerequisites: ENG 101 and RTV 101.

RTV 104 Broadcast Announcing and Performance II 3 4 5

A continuation of RTV 103. Advanced study of the announcer's techniques with practice in sight reading of all types with continuity.
Prerequisite: RTV 103.

RTV 105 Broadcast Announcing and Performance III 3 4 5

A continuation of the study of basic broadcasting procedures.
Prerequisites: RTV 103 and RTV 104.

RTV 106 Programming 3 2 4

A study of the program schedule and station image, audience determination, sources and effects of public service programs, and NAB programming codes.
Prerequisite: None.

RTV 107 Broadcast Sales and Promotion 3 2 4

An examination of rate cards and other sales tools, preparing and delivering sales presentations, obtaining and retaining accounts, and a look at agencies, administration, and compensation.
Prerequisite: None.

RTV 109 FCC Rules and Regulations 2 0 2

To prepare technicians for the third class radio-telephone operator's license

examination as administered by the General Communications Commission.
Prerequisite: None.

RTV 110 Broadcast Operations—Traffic 3 4 5

The study of fundamental processes and procedures utilized in broadcast control and studio areas, including logging, announcing, and format. The operation of audio equipment will include records and players.
Prerequisites: RTV 101.

RTV 114 Commercial Writing and Production 3 2 4

Learning how to combine showmanship with salesmanship; the use of dialogue, sound effects and music, special acoustical effects, drama, comedy, jingles, and verse for appealing commercials.
Prerequisite: None.

RTV 115 Radio Production Techniques 3 2 4

Creating a show! The study of format, talent sources, personnel, and techniques, of themes and intros, commercial integration, program balance, timing, cues, and hand signals.
Prerequisite: RTV 110.

RTV 199 Broadcasting Practicum 0 12 4

The student will work in an actual broadcasting station under the supervision of station management and CCTI instructors. This will enable him to observe and take part in the actual functioning of a station.
Prerequisites: RTV 101; 102; 103; 104; 107; 110; 114; 115.

RECREATION

REC 109 Facility Management 3 0 3

This course is designed to provide information regarding detail in respect to a playground, a community center, playground leadership techniques, activities, equipment, supplies and other information conducive to a successful playground and/or community center program.
Prerequisite: None.

REC 110 Introduction to Natural Resources 2 2 3

This course is designed to provide information on the various types of plants and animals that might be found on hiking or camping trips. Field trips and projects will be emphasized.
Prerequisite: None.

REC 111 Introduction to Recreation 5 0 5

Introduces the basic fundamentals of the nature, scope, significance of organized recreation services. It includes study of factors involved in the operation of basic recreation units, major program areas, and organizational patterns.
Prerequisite: None.

REC 112 Arts and Crafts I 0 4 2

This course is designed to give the student maximum practical experience in creative crafts projects and to provide the opportunity to master the techniques of teaching these projects to varying age groups in a number of recreation settings. Students will be instructed in planning activities for an arts and crafts program and will gain experience in ordering supplies.

REC 112A Arts and Crafts II 1 4 3

Continuation of Arts & Crafts I.

REC 118 Relays and Games of Low Organization 2 3 3

A course designed to stress the planning and organizing of activities for various age groups. Emphasis of this course will stress different types of games and contests.

REC 119 Team Sports 2 2 3

Offers a survey of the basic terminology, skills and rules of selected team sports and their use in recreation. Emphasis is upon knowledge and understanding of the organization, administration, and promotion of sports rather than mastery of performance skills.

REC 120 Cultural Arts 2 2 3

Presents music and art as an integral part of a well planned recreation program. Singing, rhythm and appreciation of music are included with emphasis on developing appreciation and promotion of music and art rather than mastery of performance skills.

REC 121 Program Planning and Organization 2 4 4

A study of essential elements and basic principles involved in the organization, supervision, promotion and evaluation of various types of recreation programs. Emphasis is on organized programs and services.

REC 122 Health and First Aid 2 3 3

This course is designed to promote understanding of factors which influence community health. Classroom activities focus on practices and procedures for promoting good community health and safety. First Aid procedures and accident prevention will be stressed.

REC 201 Group Leadership 3 0 3

Provides insight into the theory, principles and practice of planning, organizing, and conducting effective recreation programs for various groups. Emphasis is on group involvement.

REC 207 Sports Officiating 2 2 3

A course designed to acquaint students with the rules, knowledge and skills in officiating recreational activities. Also included will be how to recruit, train and schedule officials for activities.

REC 210 Recreational Grounds and Facility Maintenance 2 2 3

A course designed to acquaint students with the skills and knowledge of caring for grounds and supervising the maintenance necessary for a facility.

REC 211 Water Related Sports 2 3 3

Includes the basic terminology skills, and techniques of selected water related activities and their use in recreational programs. Also stressed will be swimming pool operations.

REC 220 Camp Counseling and Techniques 2 4 4

This course is designed to acquaint students with the theory of camping, different types of camp programs and skills, and the duties and rewards of being a camp counselor.

REC 221 Individual Lifetime Recreational Activities 2 4 4

A survey of the basic terminology, skills, and rules for selected individual lifetime sports and their use in recreation.

REC 223 Recreation and Special Populations 3 0 3

The study of motifications and adaptations used in recreation and physical education activities for handicapped persons. Discussions and demonstrations of techniques and equipment used in adapting various sports, games and other activities to fit the limitations of the handicapped.

REC 225 Scheduling of Activities and Tournaments 1 2 2

A study of the techniques utilized in the scheduling of activities that are incorporated in municipal and therapeutic recreation programs. A major emphasis will be placed on structuring tournaments.

Prerequisite: None.

REC 231 Social Recreation 3 2 4

Introduces methods and materials for planning, organizing, and conducting social activities for groups of various sizes and ages. Major activities will be discussed, played and/or demonstrated.

REC 241 Audio-Visual Aids 2 2 3

This course is designed to expose students to the various types of audio-visual aids in planning activities. Included will be equipment (projectors, cameras, etc.), bulletin boards, and photography.

REC 245 Recreation Activities in Corrections 2 3 3

A study of the purpose and objectives of recreational activities within the correctional institution. The course is designed to acquaint and instruct the student in the many types of recreation, their desired results, and the application of them in a correction setting.

REC 290 Recreation Practicum 1 6 3

This course will be a part-time volunteer work experience. The work settings will include: church recreation, industrial recreation, theraputic recreation, and municipal recreation. The student will assist a recreator in a face-to-face leadership role.

Prerequisite: None.

REC 299 Recreation Internship 0 40 4

This is an actual work experience in which the student serves as a leader with a recreation department, park, or summer camp.

SOCIOLOGY

SOC 102 Principles of Sociology 5 0 5

An introductory course in the principles of sociology. An attempt to provide an understanding of culture, collective behavior, community life, social instituitions and social change. Presents the scientific study of man's behavior in relation to other men, the general laws affecting the organization of such relationships and the effects of social life on human personality and behavior.

Prerequisite: None.

SOC 111 Social Problems 5 0 5

The student will be prepared to deal with social problems as they exist in our society today. Emphasis will be placed upon social problems that exist within a correctional facility.

Prerequisite: None.

SOC 225 Principles of Sociology 3 0 3

In this introduction to the principles of sociology, an attempt is made to provide an understanding of culture, collective behavior, community life, and social change. The course presents the scientific study of man's behavior in relation to other men, the general laws affecting the organization of such relationships and the effects of social life on human personality and behavior.

Prerequisite: None.

SPEECH

SPH 100 Voice and Diction I 3 2 4

The study of effective voice production and articulation, acceptable pronunciation, intonation, rhythm, and phrasing; a consideration of elementary vocal anatomy and the fundamentals of the science of sound. Specific speech problems will be handled on an individual basis.

Prerequisite: None.

SPH 101 Voice and Diction II 5 0 5

The areas of study involved are the different types of speeches, vocabulary improvement and acceptable pronunciation when reading the news, weather, sports.

Prerequisite: SPH 100.

SPH 102 Voice and Diction III 5 0 5

Emphasis will be placed on improving reading comprehension. Further work on vocabulary improvement, correct pronunciation and impromptu speaking will be included.

Prerequisite: SPH 101.

SPH 115 Public Speaking 2 0 2

This course is designed to introduce the student to extemporaneous speaking through lecture and the delivery of practice speeches in the classroom situation. The student is required to deliver four different speeches to his class and to turn in the manuscript of a fifth speech for his final exam.

Prerequisite: None.

SURVEYING

CIV 101 Surveying 1 3 2

Theory and practice of plane surveying including taping, use of transit and transit tape surveys. Emphasis will be placed on platting maps from deed descriptions.

Prerequisite: None.

CIV 105 Architectural Materials & Methods 3 3 4

General broad base study of basic materials and methods used in the construction of architectural structures will be studied. Field trips to construction sites and study of light construction and construction techniques are included.

Prerequisite: None.

TELEPHONE TECHNICIAN

TEL 100 Introduction to Telephony 3 0 3

This course is designed to introduce the basic concepts and principles of telephony including an overview of the industry, its history and development, organizational structure, and its influence on the social and economic growth of the nation.

TEL 101 Basic Electricity (2 Weeks) 5 3 6

Basic theory and concepts of DC and AC electricity as pertaining to the telephone industry will be included in this course. Material covered will include electron theory, primary and secondary cells, Ohm's law, electromagnetism, characteristics of DC and AC components and principles of meter operation. Also, theory of motor and generator operation, R-L, R-C, and L-C-R circuits and filter circuits will be studied. A review of mathematics necessary for the understanding of AC and DC theory will be covered in the beginning of the course.

TEL 102 Basic Electronics 9 12 13

Materials covered in this course will include schematic diagram reading and basic formulas as an introduction to electronics. Basic theory of vacuum tubes and transistion will be studied with the student performing laboratory experiments, demonstrating the theories and their application. Extensive training will be given in proper use of test equipment in trouble shooting electronic equipment.

TEL 103 Central Office Fundamentals 5 6 7

Print reading and circuit analysis covering the fundamentals of the linefinder, selector, connector, repeater, and reverting call circuits will be the basic objective of the course. The strowger SXS switch will be the basis for all training. The student will be thoroughly trained in the use of straight line schematics and relay sequence charts. Supervisory controls, C. O. power supply, and C. O. trunking will be included.

TEL 104 Subscriber Carrier 3 3 4

The objectof this course is to acquaint the student with a basic understanding of the terms and procedures needed to effectively install and maintain subscriber carrier systems. Proper use of all test equipment involved will be covered as well as line transmission characteristics which affect subscriber carrier circuits.

Prerequisite: ELC 102.

TEL 112 Basic Construction (1 Week) 4 0 4

This course is designed for outside plant engineers, line foreman or others responsible for making decisions with regard to designing and construction of outside telephone plant. Proper construction of aerial, underground and buried plant including clearances, sagging, bonding, grounding and protection as recommended by the National Electrical Safety Codes will be reviewed.

TEL 113 Cable Splicing (3 Weeks) 5 6 7

This course will cover the basic principles of pair identification in coded and non-coded cables. Instruction in cable preparation and splicing of straight, bridge and butt splices will be provided with practical work assignments to develop the trainees skill. Closing of splice will include sleeve and sheath preparation with instruction in wiping of joints on different types of cables.

TEL 114 Cable Maintenance (3 Weeks) 5 6 7

Those fundamentals of basic electricity necessary to understand fault location principles will be reviewed initially in this course. Instruction in locating shorts, crosses, grounds and opens will include the usage of various types of meters and locators presently in use. Practical work will include the actual identifying and location of cable faults.

TEL 115 Air Dryer Maintenance and Cable Pressurization (1 Week) 1 3 2

Principles of dryer operation and maintenance procedures will be covered in this course. In addition, cable pressurization and leak location methods including instruction in blocking, blocking tools, air flow computer (slide rule) air gages and air flow graphing will be reviewed.

TEL 116 Construction Fundamentals 3 3 4

Basic principles in the design, construction and maintenance of aerial, underground and buried plant will be reviewed with emphasis on meeting the requirements of the NESC, with respect to clearances, sagging, bonding, grounding, and protection. The student will be introduced to simple construction techniques by actually placing short sections of aerial and buried plant. He will also make simple aerial and buried splices and cut in terminals.

Prerequisite: TEL 111.

TEL 120 Semi-Postpay Paystations (1 Week) 2 2 3

Installation of paystations, booths, boothettes, and shelves will be included in this course with emphasis on grounding and wiring requirements to meet the NEC and NESC codes. Functions of each circuit as well as the purpose of all mechanical operations and field maintenance necessary to prevent most common troubles will be covered in detail. The trainee will use Automatic Electric paystation in class with references to Northern Electric as required.

TEL 121 Station Installation & Maintenance 5 3 6

This course will train the student in the fundamentals of a trouble free installation in residences and businesses. Proper drop wire attachments and placing, correct station protection, proper station wire runs, as well as methods for testing and checking out station for customer satisfaction will be covered. Methods of systematic trouble analysis and location techniques on station equipment and lines will be included. The electrical and mechanical components of various telephones will be reviewed. The student will install a station making connection from the main frame to the distribution terminal. Telephones will be installed in a mock house specifically designed to make this training realistic. Troubles will be planted on each installation for the trainee to identify and locate.

TEL 122 Prepay Paystations (1 Week) 2 2 3

Included in this course will be the description and principles of operation for the prepay and local prepay paystations. Detail functions of each circuit in these instruments will be reviewed as well as all mechanical operations to acquaint the trainee with their physical and electrical characteristics. Field maintenance procedures will also be covered to demonstrate preventative treatments. The trainee will be required to identify, locate, and clear troubles placed by the instructor.

TEL 124 Key System Installation and Maintenance 2 6 4

Key telephone systems used in this course will include ITT, Automatic Electric, Stromberg-Carlson, and Western Electric. The electrical and mechanical functions of the key telephone instrument will be reviewed. Key telephone units with C. O. lines, manual and dial intercom, and special features will be studied. Print reading and circuit analysis will be an integral part of this course. Terminaltion or running and key cables as well as strapping of KTU's will be covered. Each trainee will install a key system with various options and will then clear troubles which will be placed by the instructor. Grading of the trainee will include a report of the craftsmanship displayed in the installation and clearing of troubles.

TEL 132 Strowger Switch Maintenance (2 Weeks) 2 6 5

This course will cover SXS switch and relay adjusting. The trainee will be instructed in the purpose and the use of current flow test sets. Instruction will be provided in reading adjustment sheets. Using current flow test sets and adjustment sheets, the trainee will be required to adjust relays. Each trainee will strip down a SXS switch, name each component giving its functions; then reassemble the switch to manufacturers' specifications. Switches to be used in this course will include those manufactured by AE and ITT.

TEL 141 XY Maintenance (2 Weeks) 2 6 5

This course will cover XY switch and relay adjusting. Trainees will be instructed in the purpose and the use of current flow test sets. Instruction will be provided in reading adjustment sheets. Using current flow test sets and adjustment sheets, trainees will be required to adjust relays. Each trainee will strip down an XY switch, name each component giving its function, then reassemble switch to specification.

TEL 142 XY Circuits and Adjustments (4 Weeks) 6 9 9

This course will cover XY switch and relay adjusting. The trainee will be instructed in the purpose and the use of current flow test sets. Instruction will be provided in reading adjustment sheets. Using current flow test sets and adjustment sheets, the trainee will be required to adjust relays. Each trainee will strip down a XY switch, name each component giving its functions; then reassemble the switch to specification. Instruction will also be provided in print reading and circuit analysis of the linefinder, selector, and connector circuit plates. Reverting call circuits and repeater circuits will also be included.

TEL 151 Carrier Fundamentals (2 Weeks) 5 3 6

This course will teach the terms and procedures necessary to line up and maintain carrier systems. While specific types of carriers will not be taught, it is the intent of this course to provide a basic knowledge of theory and terminology. The course will include what is carrier, what is accomplished by carrier, principles of modulation, principles and uses of filters, and applications for repeaters. Each trainee will receive practical training in line up and level procedures.

TEL 152 Microwave Fundamentals (1 Week) 4 0 4

The course will provide the student with a basic understanding of the theory of microwave and its practical application in the telephone industry. This will include the way in which microwaves are generated, the familiarization of the components which make up a microwave system, and the terminology used in microwave maintenance. The object of the course is to prepare the student for further training inspecific types of microwave equipment.

TEL 153 Data Transmission Fundamentals (3 Weeks) 5 6 8

The course is designed to teach the student the basic fundamentals of data transmission and its application to the telephone industry. It will also cover the testing procedures used in data and familiarize the student with the test equipment involved. The object of the course is to prepare the student with the necessary knowledge to understand further training on specific types of data transmission equipment.

TEL 154 Second Class License Preparation (4 Weeks) 6 9 9

The course is a concentrated study of those principles of electronics necessary to obtain a second class radio license. Because of the area covered in this course, it is necessary for the trainee to have satisfactorily completed courses in Basic Electricity and Basic Electronics. The course is designed to prepare the trainee to obtain the license issued by the Federal Communications Commission which is required to maintain two-way radios, IMTS, and microwave systems.

TEL 155 Transmission Fundamentals (1 Week) 4 0 4

This course will cover the basic concepts of transmission in both inside and outside plant. Items covered in this course will include decibel, transmission measuring sets and requirements, impedance matching, signalling, transmission line characteristics, cable loading, impedance compensation, bridge taps, DDD network, tie trunks, echo, singing points, and via net loss.

TEL 161 Art of Motivating People (1 Week) 4 0 4

This course is designed to acquaint the first level supervisor with the fundamental principles of motivation. It will illustrate the relationship between a motivated employee and his quality and quantity of production. Role-playing techniques will be utilized in reviewing specific problems in the motivation of telephone technicians.

TEL 169 PABX Installation and Maintenance 5 6 7

This course will introduce the student to the 40B and 80A PABX. Included will be a sequence of operation with a detailed study of the functions incorporated by each unit. Procedures for installing and acceptance testing will be reviewed. Emphasis will also be placed on the maintenance of these PABX's along with methods and techniques of clearing troubles.

VETERINARY

VET 108 Zoology 3 6 6

This zoology course is designed to give the student a basic knowledge of zoological areas associated with veterinary medicine. These areas include a study of the basic animal cells and their organelles, reproduction-sexual and asexual, classification of organisms, protozoans, metazoans, bacteriology, virology, mycology, antigen-antibody reactions, basic genetics, and introductory anatomy of the vertebrate (cat and dog).

Prerequisite: None.

VET 110 Large and Small Animal Breeds 5 0 5

The study of the common breeds of domestic animals including canine, feline, porcine, ovine, equine and bovine. Some of the laboratory animals such as rats, guinea pigs, gerbils and rabbits will also be studied. Breed characteristics and fundamental breeding and management procedures will be covered. Field trips will be scheduled when possible.

Prerequisite: None.

VET 120 Animal Anatomy and Physiology 3 4 5

A study of the structure and function of the following systems of the canine: integument, skeletal, articulation, muscular, circulatory, lymphatic, respiratory, digestive, endocrine, urinary, nervous, and reproductive. Fresh canine cadavers will be used to study each system; preserved systems and glands are utilized in the study of some systems. Comparative anatomy of the skeletal, reproductive, urinary, and digestive systems will be covered in relation to the equine, bovine, porcine, and feline.

Prerequisite: VET 108.

VET 130 Laboratory Techniques I 2 4 4

This course is an introduction of the basic laboratory techniques involved in hematology and urinalysis. Hematology will include the components of blood; the origin and maturation of blood cells; the performance of PCV, Hbg, blood and BUN determinations; preparation of blood smears; staining blood smears by Wright's; Camco Quick; Gugol's and Giemsa methods; and performance of differential counts. Urinalysis will include the components of urine; urine formation and excretion and use and care of laboratory equipment will be emphasized.

Prerequisite: VET 108.

VET 132 Parasitology 3 4 5

In this course the common parasites of domestic animals are presented as to classification, anatomy, life cycle, affect on host, and control. Emphasis is placed on laboratory diagnosis.

Prerequisite: None.

VET 134 Clinical Practices I 2 4 4

This course is an introduction to the basic practices conducted in a veterinary hospital. The following areas are covered for the canine and feline: restraint, oral medication, enemas, bathing, taking temperature, and basic feeding practices. Other areas also covered are types of needles and syringes, sterilization methods, and hospital sanitation.

Prerequisite: None.

VET 240 Clinical Practices II 3 6 6

This course is a continuation of clinical Practices I and the student is responsible for all material covered in that course. It is designed to teach the student the fundamentals of sterilization; methods of sterilization; proper wrapping and labeling of materials for sterilization; injections; urine collection; blood collection and transfusion; and basic radiology.

Prerequisite: VET 134.

VET 242 Laboratory Techniques II 2 4 4

A continuation of Laboratory Techniques I, VET 130. A study of micro scopic urinalysis that enables the student to identify important structures in the urinary sediment; blood cell enumeration which includes leukocyte, erythrocyte and reticulocyte counts; and blood parasites.

Prerequisite: VET 130.

VET 244 Animal Pharmacology 3 2 4

This course entails a study of drugs and other substances of veterinary importance. Classification, basic terminology, general usage, measurement, routes of administration, and storage of drugs are emphasized. Laboratory demonstrations will be used to illustrate the action of some specific drugs.

Prerequisite: VET 108; CHM 101; CHM 106.

VET 146-ABC Large Animal Ambulatory 0 2 1

A course designed to acquaint the student with the various large animals and all of the many facets of large animal practice. The students will assist the veterinarian while making on-the-farm calls and write a report of the farm visit. This course will consist of 1 Cr. Hr. for each of three quarters.

Prerequisite: None.

VET 250 Animal Nutrition 3 0 3

This course deals with the principles of nutrition and their application to feeding practices of domestic animals. Emphasis is placed on the following: nutritional requirements of each class of animals; ration formulation; special problems involved in feeding convalescent animals. Field trips will be made to feed mills to observe operations incident to preparing rations.

Prerequisite: VET 108; CHM 101; CHM 106.

VET 252 Laboratory Techniques III 2 4 4

This course is a continuation of Laboratory Techniques I and II. The student is held responsible for all methods and materials covered in the preceding courses. Additionally, the following new material will be covered: function tests of the liver, kidney and pancreas; bacteriology methods and procedures as related to veterinary practice.

Prerequisite: VET 130 and VET 242.

VET 254 Animal Pathology 3 2 4

Designed to acquaint the student with the fundamentals of pathology including terminology, disease processes, and study of the aspects of the common diseases of domestic animals. Necropsy procedures of animals affected with various diseases will be conducted. Each student will prepare and present a term paper on a disease to be selected.

Prerequisite: None.

VET 256 Clinical Practices III 3 6 6

This is a continuation of Clinical Practices I and II, and the student is responsible for material covered in these courses. It is designed to teach the students the proper identification of instruments, the proper procedure for surgical scrub, how to properly don gown and gloves and assist in surgery, the proper use of injectable and inhalant anesthetics, how to properly prep animals for surgery, the proper intubating procedures, the identification of suture materials and surgical needles, and how to administer post-operative care to animals. The study of radiology is continued in this course.

Prerequisites: VET 134; VET 240.

VET 262 Laboratory Techniques IV 2 4 4

All of the laboratory procedures covered in Laboratory Techniques I, II, and III will be reviewed and the student is also responsible for the subject material in these courses. The following new subject areas will be presented: mycology; blood chemistry determinations using the Unimeter, Serometer, Accu-stat, and Ames BMI; cytological procedures such as vaginal smears and sperm counts.

Prerequisite: VET 130, VET 242, and VET 252.

VET 264 Office Practices 4 0 4

The following areas are covered in this course: ethics, proper public and client relations, proper telephone etiquette, proper hospital attire, supervision of hospital personnel, appointments and medical record keeping, first aid for clients and patients, and job application and interviews. Field trips to several veterinary hospitals, a diagnostic laboratory and research facility will be taken to observe different office procedures.

Prerequisite: None.

VET 266 Clinical Practices IV 3 6 6

This course is a continuation of the techniques presented in Clinical Practices I, II and III and is preparatory toward immediate employment upon satisfactory completion of the above. The new subject areas covered in this course include: bandaging techniques of the ear, tail, feet and body; making and applying the Thomas splint, the application of Metamason splints; the use of nitrous oxide in anesthesia of the cat and dog; and the use of non-rebreathing systems on the Metofane and Halothan machines. Additionally, the senior student will perform venipuncture, IM and S.A. injections, urine collection, blood collection and transfusion, and fluid and pill administration in the dog and cat utilizing the first year student for animal restraint. The senior student will clean teeth of the feline and canine using manual and ultrasonic methods.

Prerequisites: VET 134; VET 240; VET 256.

VET 268 Large Animal Clinical Practices 2 4 4

A course designed to give the student formal instruction in the area of large animal veterinary medicine. Students will work directly with large animals in such areas as restraint, anatomy, and the administering of medicines and injections. Visits to large animal veterinary practices and the state veterinary diagnostic lab are included when possible.

Prerequisites: VET 120; VET 254.

VET 299 Cooperative Occupational Education 0 40 4

This is an actual supervised work experience with a practicing veterinarian(s) during the interim summer quarter between the first and second year. The student works with the veterinarian of his choice. Monthly reports on the student's progress are completed by the veterinarian and mailed to the school to become a part of the permanent record of the student.

Prerequisite: None.

WELDING

WLD 1101A Basic Welding 2 0 6 4

Welding demonstrations by the instructor and practice by students in the welding shop. Safe and correct methods of assembling and operating the welding equipment. Practice will be given for surface welding, bronze welding, silver soldering, and flame-cutting methods applicable to mechanical repair work.

Prerequisite: None.

WLD 1120 Welding: Oxyacetylene 3 0 9 6

Introduction to the history of oxyacetylene welding, the principles of welding and cutting, nomenclature of the equipment, assembly of unit. Welding procedures such as practice of puddling and carrying the puddle, running flat beads, butt welding in the flat, vertical and overhead positions, brazing, hard and soft soldering. Safety procedures are stressed throughout the program of instruction.

Prerequisite: None.

WLD 1121 Welding: Arc 1 0 3 2

The operation of A.C. transformers and D.C. motor generator arc welding sets. Studies are made of welding heats, polarities, and electrodes for use in joining various metal alloys by the arc welding process. After the student is capable of running beads, butt and fillet welds in all positions are made and tested in order that the student may detect his weakness in welding. Safety procedures are emphasized throughout the course.

Prerequisite: None.

WLD 1121A Welding: Arc 3 0 9 6

Continuation of WLD 1121.

Prerequisite: WLD 1121.

WLD 1124 Welding: Pipe 2 0 6 4

Designed to provide practice in the welding of pressure piping in the horizontal, vertical, and horizontal fixed position using shielded metal arc welding processes according to Sections VIII and IX of the ASME code.

Prerequisite: WLD 1121.

BOARD OF TRUSTEES

Appointed by Board of Commissioners

James F. Bridges,
Deep River Used Car Lot
Route 5, Sanford, N. C. June 30, 1981

R. A. Currie,
Broadway High School
Broadway, N. C. June 30, 1983

Meigs Golden; Merrill, Lynch, Pierce,
Interstate Securities Inc.
244 Carolina Trace, Sanford, N. C. June 30, 1977

Clyde J. Rhyne,
Federal Spinning Corporation
1105, Wilkins Dr., Sanford, N. C. June 30, 1979

Appointed by Sanford-Lee County Board of Education

J. Mack Auman,
Equitable Life Insurance Agent
410 Carbonton Rd., Sanford, N. C. June 30, 1979

J. Shelton Wicker,
Wicker Oil Co., Inc.
P. O. Box 668, Sanford, N. C. June 30, 1981

Stacy Budd,
Budd's Master Tire Service
Rt. 12, Sanford, N. C. June 30, 1977

Douglas Wilkinson,
Wilkinson Cadillac-Olds, Inc.
P. O. Box 1088, Sanford, N. C. June 30, 1983

Appointed by Governor

Robert E. Brickhouse,
Sanford Brick & Tile Co.
Rt. 3, Box 66, Sanford, N. C. June 30, 1979

Robert W. Dalrymple,
Route 10, Sanford, N. C. June 30, 1977

R. B. Guthrie,
Raeford Trucking Co.
Raleigh Hwy., Sanford, N. C. June 30, 1983

Dr. Don Roscoe
Optometrist
P. O. Box 2426, Sanford, N. C. June 30, 1981

ADMINISTRATIVE STAFF

J. F. Hockaday .... President
B.S., Atlantic Christian College, M.Ed., East Carolina University, Ed.D., Duke University

Avron B. Uchurch .... Dean of Instruction
B.S., N. C. State University, M.S., N. C. State University, Advanced Graduate Study in Professional Education, UNC at Chapel Hill

Elbert C. Price .... Dean of Administrative Services
Graduate, Kings Business College, B.S., N. C. State University, M.Ed., N. C. State University

Fred Hubert Garner .... Dean of Student Services
A.A., Mars Hill, B.S., Clemson University, M.S., Clemson University

John B. Wolverton, Jr. .... Asst. Dean of Student Services
A.B., Fairmont State College, M.A., Appalachian State University, Ed.D., N. C. State University

Donald W. Cameron .... Director of Continuing Education
B.S., Atlantic Christian College, M.A.T., UNC at Chapel Hill

Merritt B. Robinson .... Director of Occupational Education
B.S., Appalachian State University, M.Ed., N. C. State University

Jimmy W. Foster .... Director of Learning Resource Center
B.S., East Carolina University, M.Ed., UNC at Greensboro

Joseph L. Morgan .... Director of Evening School
B.A., Johnson C. Smith University, M.Div., Shaw University

Charles D. McLeod, Jr. ...... Coordinator of ABE and Special Projects
A.A., Lees McRae College, B.S., East Carolina University, M.Ed., N. C. State University

Grace Taylor Hodges .... Coordinator of Continuing Education-Lee County
B.A., Duke University, M.Ed., University of North Carolina at Greensboro

James M. Turner .... Coordinator of Continuing Education-Chatham County
B.S., East Carolina University

Donald N. Buie .... Coordinator of Continuing Education-Harnett County
B.S., East Carolina University, M.A.T., UNC at Chapel Hill

H. A. Clemmer .... Supervisor-Adult Education Center

Tommy Mann .... Institutional Development Officer

FACULTY

Kenneth M. Anderson .... Motorcycle Mechanics
8 years Professional Mechanic, Graduate of 7 major Motorcycle Service Schools, 3 years Service Manager

Jesse A. Ayers, Jr. .... Automotive
Diploma, Automotive Mechanics, CCTI; A.A.S., Vocational Education, 10 years Mechanic

Kenneth W. Ayscue .... Automotive
A.A.S., Vocational Education, Manager and Mechanic 36 years

George F. Blanchard, Jr. .... Biology
B.A., North Carolina Wesleyan College

Claudette B. Bowens .... Secretarial Science
B.S., N. C. Central University, M.S.B.E., UNC at Greensboro

William W. Bradford .... Chemistry
B.S., Appalachian State University, M.S., Bio-Chemistry, V.P.I., Graduate Study Appalachian State University

Barbara W. Breeden .... Social Studies
B.S., A & T State University, M.S., A & T State University

Robert M. Brown .... Toolmaking
Certificate in Machine Shop, A.A.S., Drafting & Design

Vesper Brown .... Masonry
A.A.S. Vocational Education

Esther T. Burke .... Practical Nurse Education
R.N., Rex Hospital, B.A., Limestone College

C. K. Caldwell, Jr. .... Industrial Management
A.A., Bluefield Jr. College, B.A., Mars Hill College

Donald F. Campbell .... Veterinary Medical Technology
B.S., N. C. State University, D.V.M., University of Georgia

Ruth Cooper .... Secretarial Science
B.S., East Carolina University, Graduate Studies, UNC at Greensboro

Raymond Couch .... Law Enforcement
B.A., Parks College

John R. Dalrymple .... Business Administration
B.S., Western Carolina University, Successfully obtained CPA rating

Kathy Elliott .... English
B.A., Marshall University, M.A.C.T. Murray State University, S.C.T. Murray State University

Jerry Farmer .... Radio-TV Broadcasting
Radio manager, 20 years, A.A.S., Vocational Education, B.A. Radio-TV Broadcasting, Shaw University

Jeane L. German .... Veterinary Medical Technology
Catawba College, A.A.S., Veterinary Medical Technology, CCTI

William A. Hailey .... Business Administration
B.S., North Carolina Central University, Graduate Studies at UNC at Chapel Hill

Marvin O. Keith .... Recreation Technology
B.S., N. C. State University, M.S., UNC at Chapel Hill

Robert L. Leathers .... Law Enforcement
A.A.S., Durham Technical Institute, Undergraduate Studies at Campbell College and Guilford College, 6½ years Law Enforcement, Certified Criminal Justice Instructor

Charles William (Bill) Lowry, Jr. .... English
A.B., Duke University, 1 year study at University of Exeter, Devon England, M.A., UNC at Chapel Hill.

Linda B. Moore .... Secretarial Science
B.S.B.E., East Carolina University
Stella McCullen .... Secretarial Science
B.S., Campbell College
Joe Parsons .... Agriculture Science
B.S., N. C. State University
Gloria H. Peele, R.N. .... Practical Nurse Education
B.S., University of N. C. School of Nursing
Donnie R. Phillips .... Law Enforcement
A.S., Chowan Jr. College, B.A., N. C. State University
Elizabeth Ann Phillips .... Veterinary Medical Technology
A.A.S., Veterinary Medical Technology
Janaki R. Potukuchi .... Electronics
B.S., Andhra University, M.S., Indian Institute of Technology, Ph.D., N. C. State University
Carolyn L. Register .... Paralegal Technology
B.A., UNC at Greensboro, J.D., University of Tennessee College of Law
George Wayne Robinson .... Business Administration
B.S., East Carolina University, Graduate Studies at N. C. State University and UNC at Greensboro
Nancy K. Robinson .... Veterinary Medical Technology
A.A.S., Veterinary Medical Technology, X-Ray Technician, Dixie Hospital
Elizabeth D. Sapp .... Recreation Technology
B.A., UNC at Chapel Hill
Barbara B. Sellars .... Skills Lab Instructor
A.A.S., Secretarial Science
William Preston Sellars .... Physics
B.S., N. C. State University, M.S., N. C. State University
Lawrence W. Talton .... Business Administration
B.S., B.A., East Carolina University, M.BA., East Carolina University
Leo G. Taylor .... Physics
B.S., East Carolina University
Larry S. Thomas .... Industrial Maintenance
Diploma, Industrial Maintenance, CCTI
Cary C. Todd .... Mathematics
B.A., Campbell College; M.A., East Carolina University
David S. Uzzell .... Toolmaking
A.A.S., Vocational Education, 13 years Toolmaking
Charles G. Wadsworth .... Industrial Maintenance
Certified Welder, 16 years experience
Guy Warrick .... Director, N. C. School of Telephony
B.I.E., N. C. State University, M.Ed., N. C. State University
Percy W. West, Jr. .... Drafting & Design
B.S., N. C. State University, M.Ed., N. C. State University
Mary Jane Yarborough .... English
B.A., Campbell College, M.A., UNC at Chapel Hill

R. Morgan Yoder .... Telephony
20 years Telephone Maintenance and Training, U. S. Air Force (Ret.), A.A.S., Industrial Management

STUDENT PERSONNEL SERVICES

Margaret K. Smith .... Registrar
B.A., Meredith College
Robert R. Epley, Jr. .... Field Representative
Apprentice School, Newport News Shipbuilding & Dry Dock Company
M. Ronald Hamrick .... Counselor
B.A., UNC at Chapel Hill, M.A., Appalachian State University
Patricia A. Toney .... Counselor
B.S., N. C. A & T State University, M.S., N. C. A & T State University
Lorace J. Thomas .... Counselor
B.S., UNC at Greensboro, M.S., University of North Dakota
Samuel E. Cope .... Counselor-Student Union Manager
A.A., Wingate Jr. College, B.A., N. C. State University, M.A., University of Northern Colorado

LEARNING RESOURCE CENTER

Gwendolyn L. Glover .... Librarian
B.A., Columbia College, M.A., Appalachian State University
Joan L. Bowling .... Coordinator-Guided Studies
B.A., Atlantic Christian College
William A. Myers .... Media Technician
B.A., UNC at Chapel Hill, M.A., UNC at Chapel Hill
Phyllis A. Huff .... Recruiter—Learning Lab
B.A., English, N. C. Central University
Sherry Simonson .... Coordinator—Learning Lab
B.A., English, Methodist College
Marian P. Bridges .... Assistant Librarian
Florence S. Olmsted .... Evening Librarian
Richard Smith .... Coordinator—Learning Lab

BUSINESS OFFICE

Jackie H. Pearce .... Bookkeeper
Arlington P. Merritts .... Purchasing Agent
Alicia H. Thomas .... Asst. Bookkeeper
Margie Foushee .... Cashier

CLERICAL

Dianna Blue	Records Secretary, Student Services
Libby T. Boggs	VA Secretary, Student Services
Polly Bouldin	Secretary, Continuing Education
Laurin Campbell	Evening Reception
Nellie L. Cox	Secretary, Financial Aid & Placement
Judy Douglas	Secretary, Evening Curriculum
Janie Eudy	Secretary, Student Services
Joyce Gupton	Secretary, President
Venessa Jackson	Secretary, Continuing Education
Mary Ethel Jones	Evening Receptionist
Anne Maynard	Secretary, Student Services
Marlene L. Miller	Receptionist
Pattie McDonald	Secretary, Materials Processor
Anne Phillips	Secretary, Continuing Education
Melba J. Ragland	Secretary, Business Office
Kathy Spivey	Secretary, Director of Occupation Ed.
Martha L. Stewart	Secretary, Learning Resource Center
Sallie S. Tatum	Secretary, Continuing Education
Mattalene P. Wicker	Secretary, Dean of Instruction
Faye K. Womack	Secretary, Telephony

STUDENT STORE

Mary Lynn Rempson	Bookstore Manager
Norman C. Calcutt	Concessions Manager
Alice Farrow	Cook
Gladys Roberson	Cook
Theodosia Harrington	Cook

MAINTENANCE & CUSTODIAL

Richard F. Suddarth	Director of Physical Plant
Carson Bethea	Supervisor of Custodial Services
Stewart McLean	Custodian
Henry Smith	Custodian
Wade Siler	Custodian
Bettie Taylor	Maid

CENTRAL CAROLINA TECHNICAL INSTITUTE

1105 Kelly Drive, Sanford, NC 27330 Phone: 775-5401

I would like information on the following program:

__Accounting
__Automotive Mechanics
__Banking and Finance
__Business Administration
__Campbell College Transfer
__Drafting and Design
__Electronic Technology
__Industrial Maintenance
__Industrial Management Tech.
__Law Enforcement Corrections Tech.
__Motorcycle Mechanics
__Paralegal Technology
__Practical Nurse Education
__Radio-TV Broadcasting
__Real Estate
__Recreation Leadership Tech.
__Secretarial Science
__Telephony Technician
__Toolmaker/Machinist
__Veterinary Medical Tech.

I am interested in ☐ Day — ☐ Evening Programs
NAME ______________________________ PHONE __________
ADDRESS ____________________ CITY __________ ZIP __________
DATE: ________________ VETERAN: Yes ☐ No ☐
PLEASE SEND: APPLICATION ☐, CATALOG ☐, BROCHURE ☐
COMMENTS ____
____
____

CENTRAL CAROLINA TECHNICAL INSTITUTE
1105 Kelly Drive, Sanford, NC 27330 Phone: 775-5401
I would like information on the following program:

__Accounting
__Automotive Mechanics
__Banking and Finance
__Business Administration
__Campbell College Transfer
__Drafting and Design
__Electronic Technology
__Industrial Maintenance
__Industrial Management Tech.
__Law Enforcement Corrections Tech.
__Motorcycle Mechanics
__Paralegal Technology
__Practical Nurse Education
__Radio-TV Broadcasting
__Real Estate
__Recreation Leadership Tech.
__Secretarial Science
__Telephony Technician
__Toolmaker/Machinist
__Veterinary Medical Tech.

I am interested in ☐ Day — ☐ Evening Programs
NAME ______________________________ PHONE __________
ADDRESS ____________________ CITY __________ ZIP __________
DATE: ________________ VETERAN: Yes ☐ No ☐
PLEASE SEND: APPLICATION ☐, CATALOG ☐, BROCHURE ☐
COMMENTS ____
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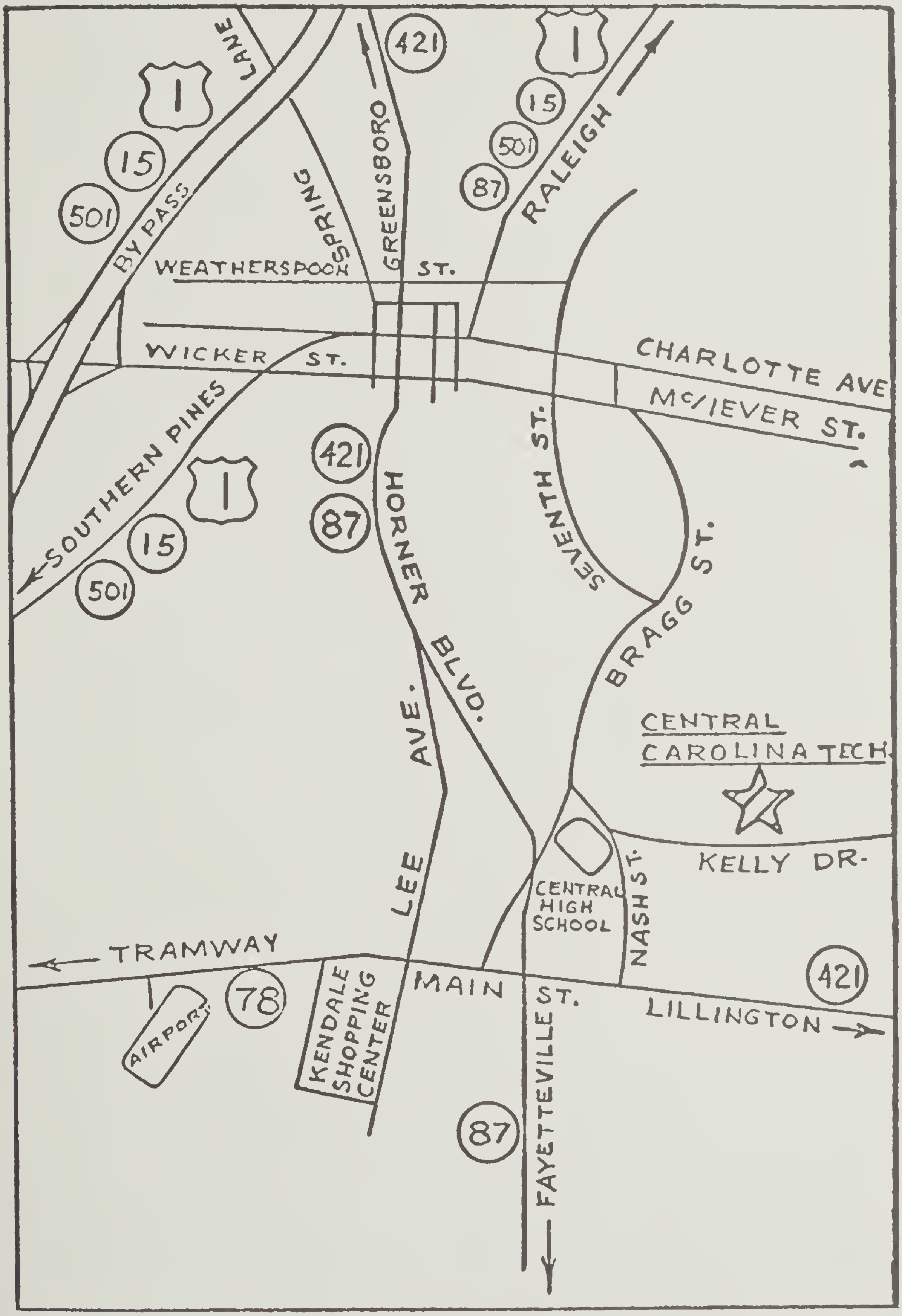

Central Carolina Technical Institute
1105 Kelly Drive
Sanford, N. C.

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